Battle Command

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Battle Command

Battle Command—*the exercise of leadership in combat. Will technology lead military thinkers to reconsider existing notions of battle command? In this section, authors reflect on 21st-century combat leadership. Major General Russel L. Honoré examines two integrated leadership models under specific conditions of METT-TC. Lieutenant Colonel Marc LeGare explores how the Army's current digital command and control systems are creating new ways for commanders to visualize the status of units, to formulate courses of action, and to articulate intent and issue guidance. Colonel James K. Greer delivers an articulate discussion about emerging operational doctrine for the Objective Force. Lieutenant Colonel Scott R. McMichael concludes with a startlingly realistic picture of what technologically enhanced warfighting could look like. Yet, despite technology's influence, war remains a particularly human endeavor. Major General Werner Widder argues that the critical ingredient for success on the tomorrow's battlefield remains the soldier exercising judgment at the critical time and place in accordance with the commander's intent.*

Auftragstaktik and Innere Führung:
Trademarks of German Leadership

Major General Werner Widder, German Army

IN MAY 1940, the seizure of the Belgian fortress of Eben Emael was critically important to the successful conduct of the French campaign by the German Wehrmacht in World War II. And yet, preparation and conduct of this special operation were entrusted to a first lieutenant of the paratroopers, which at the time was a branch of the air force. At his disposal were just 77 paratroopers. At the very beginning of this operation the glider aircraft of the assault force leader, First Lieutenant Rudolf Witzig, was forced to make an emergency landing in a field near Cologne, which was approximately 100 kilometers from the objective. The remaining aircraft flew on and landed inside Eben Emael. The paratroopers completed their mission, but under the leadership of a staff sergeant.

During the landing approach to Eben Emael, another glider had to force-land approximately 60 kilometers from its objective. The assault section leader, Staff Sergeant Meier, took decisive action by appropriating two vehicles and then threading his way through the columns of the main attack divisions marshaled at the border. Reaching Maastricht, he crossed the Meuse River and advanced into the glacis of Eben Emael. He was prevented from storming the fortress by the canal surrounding it. So, he decided on his own initiative to attack the Belgian forces in the environs of the fortress. Wounded in the course of the fighting, Meier captured 121 Belgian prisoners of war, whom he turned in the following day against a receipt as proof that he had done everything in his power to complete his mission. In the meantime, Witzig had located another aircraft to tow his glider. Taking off again for Eben Emael, he landed inside the fortress, immediately assumed command of his assault force, and brought about the surrender of the Belgian fortress.

The successful completion of this operation was an absolute prerequisite to ensure the Wehrmacht's

This article is adapted from an address MG Widder gave to CGSOC class 2002 on 3 April 2002 at Fort Leavenworth, Kansas.—Editor

> *The action at Eben Emael [in 1940] is a particularly good example of Auftragstaktik. . . . The successful completion of this operation was an absolute prerequisite to ensure the Wehrmacht's rapid advance across the Meuse River and, thus, was essential to the rapid conclusion of the French campaign. The initiative and battle command skills of a first lieutenant and a noncommissioned officer were put to the test, and both gave an excellent accounting of themselves.*

rapid advance across the Meuse River and, thus, was essential to the rapid conclusion of the French campaign. The initiative and battle command skills of a first lieutenant and a noncommissioned officer were put to the test, and both gave an excellent accounting of themselves, for which they received the Knight's Cross of the Iron Cross, at the time, Germany's highest decoration for bravery.[1]

The action at Eben Emael is a particularly good example of Auftragstaktik—a leadership principle the German Armed Forces have practiced for 200 years. Auftragstaktik is a command and control principle that evolved during the 19th and 20th centuries. The tactical and operational military manuals of the German Army repeatedly refer to Auftragstaktik and call it the "pre-eminent command and control principle of the Army."[2] In 1998, Auftragstaktik was codified once again in German Army Regulation (AR) 100/100 (Restricted), *Command and Control in Battle*, the bible of the German Army.[3]

The Origins of Auftragstaktik

Auftragstaktik was not an idea introduced into German military thinking by decree. Far from simple or rapid, its adoption was a difficult, long-running process. The beginnings of Auftragstaktik can be dated to 1806, following the disastrous defeat of the Prussians at Jena and Auerstedt. Napoleon's modern brand of warfare exposed Prussian deficiencies and

German AR 100/100 describes Auftragstaktik very succinctly: "Auftragstaktik is the pre-eminent command and control principle in the Army. It is based on mutual trust and requires each soldier's unwavering commitment to perform his duty." The challenges for the leader are diverse since the regulation goes on to say: "The military leader informs what his intention is, sets clear achievable objectives, and provides the required forces and resources. He will only order details regarding execution if measures which serve the same objective have to be armonized, if political or military constraints require it."

the need for modernizing the Prussian Army.

Initial reform was brought about by the infantry drill regulations of 1812, in which the set-piece conduct of battle was abolished, and at least for the higher levels of leadership, initiative and independent thought and action became important factors. For the lower levels of command, column tactics, with its massive bodies of troops, continued to impose severe limits on the conduct of battle.

In the mid-19th century, the breech-loading rifle began to replace the far less efficient muzzle loader. The breechloader represented a revolution in armaments technology. This revolution in military affairs was the starting point for a transformation of the infantry and was a decisive direction-setting development that set the course for the eventual adoption of Auftragstaktik.

The German wars of unification of 1864 against Denmark, of 1866 against Austria, and of 1870-71 against France proved that advances in armaments had outstripped advances in tactical and doctrinal development. To reimpose some form of command and control, it now became important to develop a new concept that, on one hand, would enable some independence of action while, on the other, would preclude misguided action by lower-level leaders.

One of the first to recognize the signs of the times and draw the right conclusions was Field Marshal Helmut von Moltke, Chief of the General Staff of the Prussian Army from 1857 to 1888. Moltke is considered in Germany the creator of operational-level command and control and the spiritual father of operational principles. Moltke also played a decisive role in the development of Auftragstaktik.

In his writings, his memoranda, his publications but particularly in his everyday life as a leader, Moltke promoted the introduction of Auftragstaktik. One of his main concerns was to foster independent thinking and acting among his subordinates: "Diverse are the situations under which an officer has to act on the basis of his own view of the situation. It would be wrong if he had to wait for orders at times when no orders can be given. But most productive are his actions when he acts within the framework of his senior commander's intent."[4] By saying this, Moltke stated a key principle of Auftragstaktik: the subordinate is to act within the guidelines of his superior's intent. Knowing his superior's intent, the subordinate thus works toward achieving it.

The years after 1871 were characterized by two conflicting trends. The conventional tacticians, or Normaltaktikers, were tight-rein supporters who wanted to specify the troops' battle actions down to the last detail. Tight-rein supporters argued that detailed orders would counteract the dispersal effect brought about by modern armaments and the supposed unrestrained independence at lower command levels.

On the other hand were the Auftragstaktikers, mission-command supporters who urged the inde-

pendence of small units which, they said, was the necessary consequence of modern armaments. The mission-command supporters did not issue detailed orders to limit the freedom of action of lower command levels, but rather, assigned each unit its own, clearly defined task—its mission. From 1914 until today, Auftragstaktik has had a firm place in the German Army's command and control philosophy.

Although throughout the 19th century the principle of Auftragstaktik was being incorporated into German military doctrine, it still met resistance. The term Auftragstaktik first surfaced in the early 1890s. It was coined by those who resented the process, as the term was to show disdain. Auftragstaktik was considered a threat to military discipline and, thus by extension, to everything military.

Auftragstaktik and Innere Führung

The military leadership of today's German Army recognizes two cornerstones: the concept of Innere Führung and the principle of Auftragstaktik. Innere Führung is today inseparably linked with Auftragstaktik.

Innere Führung. The German Army's common image of man is that the soldier is a free person. His individual dignity is respected just as well as his basic rights and rights of liberty. These rights are guaranteed for all citizens, and thus also for soldiers. Only the responsible citizen will act out of his own free will and the responsibility he feels toward the community. He recognizes that the values of the community have to be defended even at the risk of his own life.

In the Bundeswehr, this image of man finds its conceptual expression in what is called Innere Führung, meaning leadership and civic education. Innere Führung is the commitment of German soldiers to moral-ethical standards. Innere Führung is the German Armed Forces' corporate culture, and it integrates the Bundeswehr into German society.

DOD

Defense Secretary William S. Cohen congratulates General Wesley K. Clark, U.S. Army, after presenting him the Department of Defense Distinguished Service Medal at a 1999 Pentagon ceremony.

Peace operations in particular are subject to intensive media coverage. Every action a soldier takes is broadcast into living rooms in almost real time, and political leaders must answer for it immediately. The pressure on the political leadership to act or to explain is particularly acute [and] frequently generates a tendency to want to control everything. . . .

General Wesley Clark recalled that he had just given a press conference in connection with NATO air attacks in Kosovo in April 1999 when General Hugh Shelton called . . . and said, "The Secretary of Defense asked me to give you verbatim guidance, so here it is: 'Get your f-----g face off the TV. No more briefings, period.' "

Auftragstaktik. German AR 100/100 describes Auftragstaktik very succinctly: "Auftragstaktik is the pre-eminent command and control principle in the Army. It is based on mutual trust and requires each soldier's unwavering commitment to perform his duty."[5] The challenges for the leader are diverse since the regulation goes on to say: "The military leader informs what his intention is, sets clear achievable objectives, and provides the required forces and resources. He will only order details regarding

execution if measures which serve the same objective have to be harmonized, if political or military constraints require it. He gives latitude to subordinate leaders in the execution of their mission."[6] Thus, Auftragstaktik is more than giving a mission to a

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subordinate and allowing him the latitude to execute it. Rather, it is the superior's duty to specify the objective and the framework within which the subordinate has to accomplish the mission. The commander provides all resources required to carry out the mission. This, in turn, means that execution itself becomes the executor's responsibility. His skills, creativity, and commitment will be the key elements of execution. Thus, Auftragstaktik is not merely a technique of issuing orders but a type of leadership that is inextricably linked to a certain image of men as soldiers.

Auftragstaktik in Peace Operations

Although Auftragstaktik was developed during war and proved its worth in battle, Auftragstaktik has a role in peace operations. German AR 100/100 states: "The principles of 'Auf-tragstaktik' also apply to peace operations but are subject to unique constraints, which often severely limit freedom of action on the ground."[7] The unique constraints are to be seen in the political dimension of these operations.

The CNN factor. In their recently published respective memoirs, U.S. Army General Wesley K. Clark, former Supreme Allied Commander, Europe, and General Dr. Klaus Reinhardt, former Kosovo Force commander, described a number of political interventions into their areas of responsibility. Clark recalled that he had just given a press conference in connection with NATO air attacks in Kosovo in April 1999 when Chairman, Joint Chiefs of Staff (CJCS), General Hugh Shelton called that evening and said, "The Secretary of Defense asked me to give you verbatim guidance, so here it is: 'Get your

f-----g face off the TV. No more briefings, period. That's it.' I just wanted to give it to you like he said it. Do you have any questions?"[8]

Peace operations in particular are subject to intensive media coverage. Every action a soldier takes is broadcast into living rooms in almost real time, and political leaders must answer for those actions immediately. The pressure on the political leadership to act or to explain is particularly acute. This pressure frequently generates a tendency to want to control everything. This tendency often finds its expression in direct interference with the operational and tactical leadership on the ground, as was the case with Clark.

The West's no-loss mentality. The no-loss mentality prevalent in free societies is, of course, something to be approved of, in principle. No military leader wants losses among his men. "Take care of your soldiers" is the maxim military leaders at all command levels voice, including former CJCS General Colin Powell. In the context of media presence, however, even minimal casualties can have serious implications of strategic dimensions. Recall the terrible pictures of October 1993 in Mogadishu, Somalia. These pictures caused the United States and subsequently the UN to withdraw their military commitment from Somalia.

The soldier as strategic player. During peace missions, it is frequently important to uphold the principle of impartiality, in particular under difficult circumstances. In this environment, the still-smoldering fuse on the powder keg can be quickly reignited, and the peace force can become the enemy of one faction or another. Such a loss of credibility would have serious political implications. Therefore, in contrast to war, actions of even a single soldier in peace missions can have strategic significance. As a result, political leadership has a high interest in pushing its particular intentions as far as possible. The political outcome can depend on the right or wrong action of a single soldier at a checkpoint. Therefore, detailed political guidance is seen as the guarantee to success, with the result that the military has a limited field of action.

The rules of engagement. Peace missions are no longer unique operations. They currently are more probable than actual warfighting. The boundary between war and peace is becoming increasingly blurred. Today, in Afghanistan, one even sees the concurrent conduct of a combat operation and a peace operation. Peace operations are always complex, protracted, and frustrating. A mission's overall success eminently depends on many small suc-

Sole reliance on satellite images will only yield partial success. As a general rule, the individual on the ground—the human intelligence expert, the Green Beret, the forward air controller—provide the decisive information to deliver the crucial blow. The decisionmaking process can only be expedited decisively and sustainably if we accept the fog of war as a system-inherent facet, even in an environment of total information immersion.

cesses, which promote trust and reconciliation and help to overcome hatred and bloodshed. Narrowly defined rules of engagement limit a peace mission's scope of action and are intended to guarantee the security of multinational contingents while they perform their sensitive and complex tasks.

"We [the German Army] have no use for soldiers without a will of their own who will obey their leaders unconditionally. We need self-confident men [and women] who use their whole intelligence and personality on behalf of the senior commander's intent."[9] A German author wrote these words in 1906, and they are still valid today in the difficult environment of peace missions and in the presence of new forms of modern warfare, such as terrorism. During peace operations, in particular, soldiers must do more than just obey orders and operate their individual weapons. Every military leader at every level of command maintains that he has the best soldiers. If this is so, he must be allowed to prove it. It is, therefore, out of the question that a colonel or

even a general appoint himself squad leader to direct traffic at a road intersection or to instruct a patrol leader about his mission.

Auftragstaktik in the 21st Century

As mentioned earlier, Auftragstaktik was triggered by a revolution in military affairs brought about by the invention of the breech-loading rifle and other 19th-century developments in armaments technology. Today, the question is, have military affairs again reached such a revolutionary point? Some authors consider information technology just such a watershed.

Information technology. Where information technology is concerned, the U.S. Armed Forces are without peer. Although others are developing and implementing information technology, they are limping far behind, and the Bundeswehr is currently limping on both legs. In the future it will be increasingly possible to transmit data in real time. The precise location of the patrol leader will be visualized

for every command level; observations and information of all kinds will be available to all levels at the same time. Excellent opportunities for outdoing the enemy unfold: "See First—Understand First—Act First—Finish Decisively" is the leading tenet of the recently published U.S. Army White Paper, *Concept for the Objective Force*.[10]

The transmission of information does not represent a problem anymore; the challenge of information lies with its processing. If the time one gains

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The transmission of information does not represent a problem anymore; the challenge of information lies with its processing. If the time one gains through real time transmission is spent receiving, processing, and assessing information only to discover that the information is untimely, irrelevant, or redundant, then time is wasted and information technology quickly develops into a drawback. . . . Auftragstaktik sets the framework for meaningful reception and dissemination of information . . . [and] holds the key to information management and thus, by extension, to successful command and control.

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through real time transmission is spent receiving, processing, and assessing information only to discover that the information is untimely, irrelevant, or redundant, then time is wasted and information technology quickly develops into a drawback.

Therefore, in this connection, two things are important. First, the handling of information must be learned and practiced. Relevant information must be distinguished from irrelevant information. Information must be collected, assessed, and distributed horizontally and vertically in a manner useful for the respective recipient. Second, the distinguishing feature of leadership is not the mere possession of an information medium; it is having the ability and the will to assess the information that the medium contains. At no command level can assessment be dispensed with. This means that orders must be adapted to the command level to which they are issued.

Auftragstaktik sets the framework for meaningful reception and dissemination of information. It forces the superior commander to assess information and to convert it into orders for subordinate command levels. Auftragstaktik holds the key to information management and thus, by extension, to successful command and control.

Micromanagement. The availability of the technical resources to manage information gives rise to a behavior that is particularly conspicuous at higher levels of command, namely, micromanagement. These higher command levels often and incorrectly believe they know better than lower command levels. Consequently, they interfere directly with lower command levels, with the laudable intention of making their information available to everyone. Therefore, to translate the information advantage into an actual time advantage, intermediate command levels are skipped, and the information is passed directly to the intended recipient, while the actual responsible level is only included at most as an information addressee. In such a situation, the actual responsible command level degenerates into an information administrator while the superior level involves itself in matters of excessive detail. Already, under Napoleon, the danger of "ordre, contreordre, désordre" existed. Today, this danger is linked with micromanagement.

It is unacceptable that subordinate levels are disregarded and that higher command levels skip intermediate command levels and interfere with tactical decisions on the ground. In addition to the implications for freedom of action and the operations of soldiers, risks emerge for the tactical and operational levels of military command.

Today we notice an increasing dispersal of battles, of operations, of campaigns, and even of war itself. While in the past the core of operations consisted of a campaign directed at crushing the enemy in a relatively clearly defined area, today the situation is less distinct, more diffuse, and more difficult. Nevertheless, the relation between space, time, forces, and information continue to be critical.

The commander who attempts to specify everything is doomed to get lost in detail. He will lose track of things and fail. What is more, the commander who reaches down to exercise command and control at subordinate levels will lose the support of his men and women and undermine their bases of action.

Transparency. The vision of the transparent battlefield is realistic in principle. From the technological perspective almost everything is possible today. "See First—Understand First—Act First—Finish Decisively" is the guideline. It implies that speed is necessary to be "first." But what speed is being talked about here? It is not the speed in transmitting information from the patrol leader to the division G2 section. Rather, it is the speed in planning that is part of the staff work at all levels, and of course, it is the speed of the leader's decisive decisionmaking. These are the factors that will drive the speed of action.

What is important is to turn inside the enemy's decision cycle. One's own decisions have to be made

and implemented at the right time and must be valid for a certain period of time. What is more, the subordinate command levels must be able to keep up with the rhythm of decisions of higher command levels. At the cutting edge of the decision chain is the tank company that has to counterattack out of the reserve. It simply cannot be moved in real time from the assembly area to the location where the counterattack is to take place.

It is, therefore, important for the military commander to develop what Carl von Clausewitz calls "Takt des Urteils," or "the tact of judgment," in such a way that the commander's judgment will expedite the command and control process when combined with modern technology.[11] The history of warfare is full of examples of people who relied on the sophistication of their own technology while they neglected their command and control and training doctrines. Clausewitz will continue to be right when he highlights the fog of war and friction as system-inherent key characteristics of warfare.

Sole reliance on satellite images will only yield partial success. As a general rule, the individual on the ground—the human intelligence expert, the Green Beret, the forward air controller—provides the decisive information to deliver the crucial blow. The decisionmaking process can only be expedited decisively and sustainably if we accept the fog of war as a system-inherent facet, even in an environment of total information immersion. The major challenge for command and control in the information age will be to recognize where transparency will be required and where it will not be needed. Otherwise, the time gained through sophisticated assets will be wasted again.

While Auftragstaktik has proven its worth for over two centuries, it is still a modern leadership principle. The decisive foundation for Auftragstaktik is peacetime training with a deliberate focus on training sol-

The availability of the technical resources to manage information gives rise to a behavior that is particularly conspicuous at higher levels of command, namely, micromanagement. These higher command levels often and incorrectly believe they know better than lower command levels. Consequently, they interfere directly with lower command levels, with the laudable intention of making their information available to everyone.

diers to think independently and to act according to the superior commander's intent. The superior's specified objective, his confidence in his subordinates' capabilities, his and his subordinates' acceptance of their respective responsibilities, and their freedom to act are the four cornerstones of Auftragstaktik on the one hand and its secret on the other. The onus, nevertheless, still remains with the commander, who must provide the necessary means to accomplish the mission.

Auftragstaktik is based on an image of man who values his individual dignity and freedom and who harnesses them to achieve superior strength. This concept is still valid for the 21st century. Based on the premise that leadership encompasses two aspects—being a role model and accepting responsibility—leadership requires competence, strength of character, trust, initiative, judgment, assertiveness, and decisionmaking ability at all command levels. Only Auftragstaktik enables the meaningful exploitation of the most sophisticated technology, and only Auftragstaktik allows mastery of the increasingly complex challenges of the 21st century. Most important, it takes the encouragement of superiors and the courage of subordinates to make Auftragstaktik work. ***MR***

NOTES

1. Stephan Leistenschneider, *Auftragstaktik im preußisch-deutschen Heer 1871 bis 1914* (Auftragstaktik in the Prussian-German army from 1871 to 1914), The Military History Research Agency, ed. (Hamburg. GE: Verlag E.S. Mittler & Son, 2002), 147.
2. German Army Regulation (AR) 100/100 (Restricted), *Army Command and Control* (Bonn, GE: 15 October 1998), 302.
3. Ibid.
4. *Moltkes Taktisch-strategische Aufsätze aus den Jahren 1867 bis 1871: Zur hundertjährigen Gedenkfeier der Geburt des General-Feldmarschalls Grafen von Moltke* (Moltke's tactical-strategic essays from the years 1867 to 1871: on the hundredth anniversary of the birth of General Field Marshal Grafen von Moltke), the Great General Staff, Department of the History of War, ed. (Berlin, GE: 1900) as published in *Verordnungen für die höheren Truppenführer* (Guidelines for higher commanders), 29 June 1969, as quoted in Major General Millotat Christian, Deputy Commanding General, II (GE/US) Corps, "Auftragstaktik, Das oberste Führungsprinzip im Heer der Bundeswehr—ihre Entwicklung und Darstellung in deutschen militärischen" (Auftragstaktik, the paramount principle in the army of the German armed forces—Its development and representation in German military publications), lecture delivered during Commander's Conference of German Army Forces Command, 29 November 2000, 10.
5. German AR 100/100, 302.
6. Ibid.
7. Ibid., 3,818.
8. Wesley K. Clark. *Waging Modern War: Bosnia, Kosovo, and the Future of Combat* (New York: Public Affairs, May 2001), 273.
9. Ernst van den Bergh, *Die seelischen Werte im Frieden und im Kriege* (Ethical values in peace and war), a study in *Militär-Wochenblatt* 91 (Military weekly) (91, 1906), Beiheft 6 (insert 6), 233, as quoted in Leistenschneider, 95.
10. U.S. Department of the Army White Paper, *Concept for the Objective Force* (Washington, DC: U.S. Government Printing Office, 2001), ii.
11. Carl von Clausewitz, *On War* (Hamburg, GE: Rowohlt, 1963), 34.

Major General Werner Widder, German Army, is the commanding general, German Army Training and Doctrine Command, Cologne, Germany. Command and staff assignments include serving as commander, 13th Mechanized Infantry Division, Leipzig, Germany; chief of staff, Headquarters, Stabilization Forces, Sarajevo, Bosnia-Herzegovina; chief of staff, IV Corps, Potsdam, Germany; and commander, 41st Mechanized Brigade, Eggesin, Germany.

Battle Command

Major General Russel L. Honoré, U.S. Army

Know the enemy, know yourself;
your victory will never be endangered.
Know the ground, know the weather;
your victory will then be total.
—Sun Tzu[1]

DPARTMENT of the Army Field Manual 3-0, *Operations*, says, "The art of command lies in the conscious and skillful exercise of command authority through visualization, decisionmaking, and leadership."[2] These characteristics are the hallmarks of great leaders within the military profession. Great leaders are able to visualize an operation from its current state to an end state; to make qualitatively better decisions than can an enemy; and to lead soldiers in peace and in combat. Perfecting professional skills improves the organization by helping develop future leaders and build future teams. Strong teams enable the Army to operate as a learning organization capable of adapting to meet any challenge.

The complexity of the military profession requires leaders who can make the most of physical, intellectual, and moral resources. The professional challenge of battle command involves applying the art and science of war to specific conditions. Doctrine assists, but doctrine is descriptive, not prescriptive, and requires commanders to get personally involved and make decisions.[3] This article focuses on the thoughtful application of doctrine in specific conditions. I endeavor to show how to apply doctrine, using METT-TC (mission, enemy, terrain and weather, troops available, time, and civil considerations).

Battle command is developed and practiced based on two integrated leadership models that guide operations in garrison and in the field—the Model of Excellence and the Battle Command Model. The models provide the foundations for effective leadership and battle command in the wide range of conditions encountered by deployed units.

The Model of Excellence

The Model of Excellence depicts the relationship between competence, confidence, discipline, and esprit de corps that complements Army values and enables units to perform effectively under a variety of conditions. The Model of Excellence focuses on standards, and noncommissioned officers (NCOs) are keepers of the standards. The model's three principal components—competence, confidence, and discipline—are mutually reinforcing. Balance among competence, confidence, and discipline creates strong units with high esprit de corps.

Competence. Competence means that soldiers have the skill, knowledge, and ability to do their jobs—and to do them right. Competence is the mastery of four domains: values, attributes, skills, and actions.[4] The Army values—loyalty, duty, respect, selfless service, honor, integrity, and personal courage (LDRSHIP)—reflect individual character and represent the heart of our soldier-centered profession.

The three types of attributes from the Army leadership framework—mental, physical, and emotional—contribute to individual competence by providing the ability to learn and apply skills to solve Army problems.[5] These values and attributes clearly describe what a leader should BE.

Skill, the ability to apply knowledge to solve a problem, is essential to developing competence. All service members learn technical and tactical skills as part of their transformation from civilians to soldiers. Technical skills give soldiers the know-how to operate equipment. Tactical skills provide leaders with the knowledge to make the right decisions at the appropriate leader level concerning the employment of units in combat. Also, leaders develop interpersonal skills to gain knowledge of their people and how to work with them. Since leadership begins with influencing people, these skills are critical for operations and for improving the organization by developing future leaders. Finally, conceptual skills allow leaders to understand and apply doctrine and other ideas required to do the job. Developing skills in these four knowledge domains (technical, tactical, interpersonal, and conceptual) leads to competence in what leaders should KNOW.

The actions a leader must DO derive from the Army definition of leadership. Without action, one suffers from a syndrome known as "a whole lotta HOOAH and not enough DO-AH." Leader actions are categorized as influencing, operating, and improving. The "influencing actions" (communicating, decisionmaking, and motivating) stem from interpersonal and conceptual skills and are grounded in institutional values and character. The "operating actions" describe how Army forces conduct missions in a continuous cycle of planning, preparation, execution, and assessment. Battle command powers this operations process, which draws on commander and staff skills to address all aspects of the art and science of warfare. "Improving actions" focus on the organization and the institution by developing subordinates into future leaders and building teams and systems that endure beyond a leader's tenure. As soldier and leader competence grows, individual confidence inevitably follows.

Confidence. Confidence expands through repetition, which leads to an automatic response. Soldiers who know how to use equipment properly (technical skills) gain confidence that they can contribute to the mission. Mastery of the art of tactics at the appropriate level and competence in tactical skills give leaders the confidence to make sound decisions and give subordinates the confidence to make recommendations.

Soldiers and leaders must have the opportunity to develop interpersonal and conceptual skills. Knowing fellow leaders and soldiers and how to work with them offers the double benefit of developing confidence in one's own interpersonal skills and confidence in one's battle buddy. Developing confidence based on competence in conceptual skills means more than knowing doctrine, standing operating procedures, and tactics, techniques, and procedures. Confidence comes from developing the ability to understand and apply knowledge—first in thought, then in action.

Discipline. With competence and confidence achieved, discipline is required to achieve and maintain excellence. Individual soldier discipline is consistent with living up to Army values. Discipline means doing what needs to be done without being told to do it and doing what is right when no one is watching. Soldiers demonstrate self-discipline by mastering required skills, maintaining proficiency in those skills, and seeking opportunities to learn or develop new skills.

Unit discipline is the collective discipline of organizations of all sizes. Units train individual and collective skills, provide opportunities for ongoing training to maintain proficiency (competence), and provide training opportunities to develop new skills

and to build confidence. Unit discipline also provides the expectation of accountability—not to be confused with a lack of trust. Accountability provides an impetus for increased discipline and provides structure for doing the "harder right."

Leader discipline is perhaps the most important form of discipline in a warfighting organization. "However compassionate we may be with others, we dare not be soft or indulgent with ourselves. Excellence comes at a price, and one of the major


The commander uses the battle-field framework to form the visualization. The assigned area of operations delineates the physical volume of space in which the formation will operate. The battlespace is conceptual and includes such things as the area of influence, the area of interest, the information sphere, the flow of reinforcements, institutional capabilities, and so on.

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prices is that of inner control."[6] NCOs are keepers of the standards. Organizational leaders develop individual and unit collective skills, and they also ensure discipline through policies, systems, and programs that promote competence, confidence, and discipline (for individuals, units, and leaders). Solid individual, unit, and leader discipline makes excellence possible at all levels.

Esprit de corps. The by-products of competence, confidence, and discipline are esprit de corps and high morale. Esprit de corps is an indispensable commodity in military organizations, but one cannot buy it, sell it (or trade it in for something else), or demand its presence. Esprit de corps grows spontaneously when soldiers, leaders, and units operate with competence, confidence, and discipline. Find a unit with high morale and esprit de corps, and one can rest assured that disciplined, confident, competent soldiers fill its ranks, and disciplined, confident, competent leaders stand in front, behind, and within.

The Battle Command Model

The Battle Command Model of leadership supports decisionmaking in both tactical and garrison operations.[7] The Battle Command Model, grounded in Army decisionmaking and leadership doctrine, provides leaders with a useful framework within which to solve Army problems. The Battle Command Model depicts the essential elements of military decisionmaking including the five-paragraph field order and METT-TC. Perhaps most important, the Battle Command Model portrays the importance of understanding the relationships between each of the
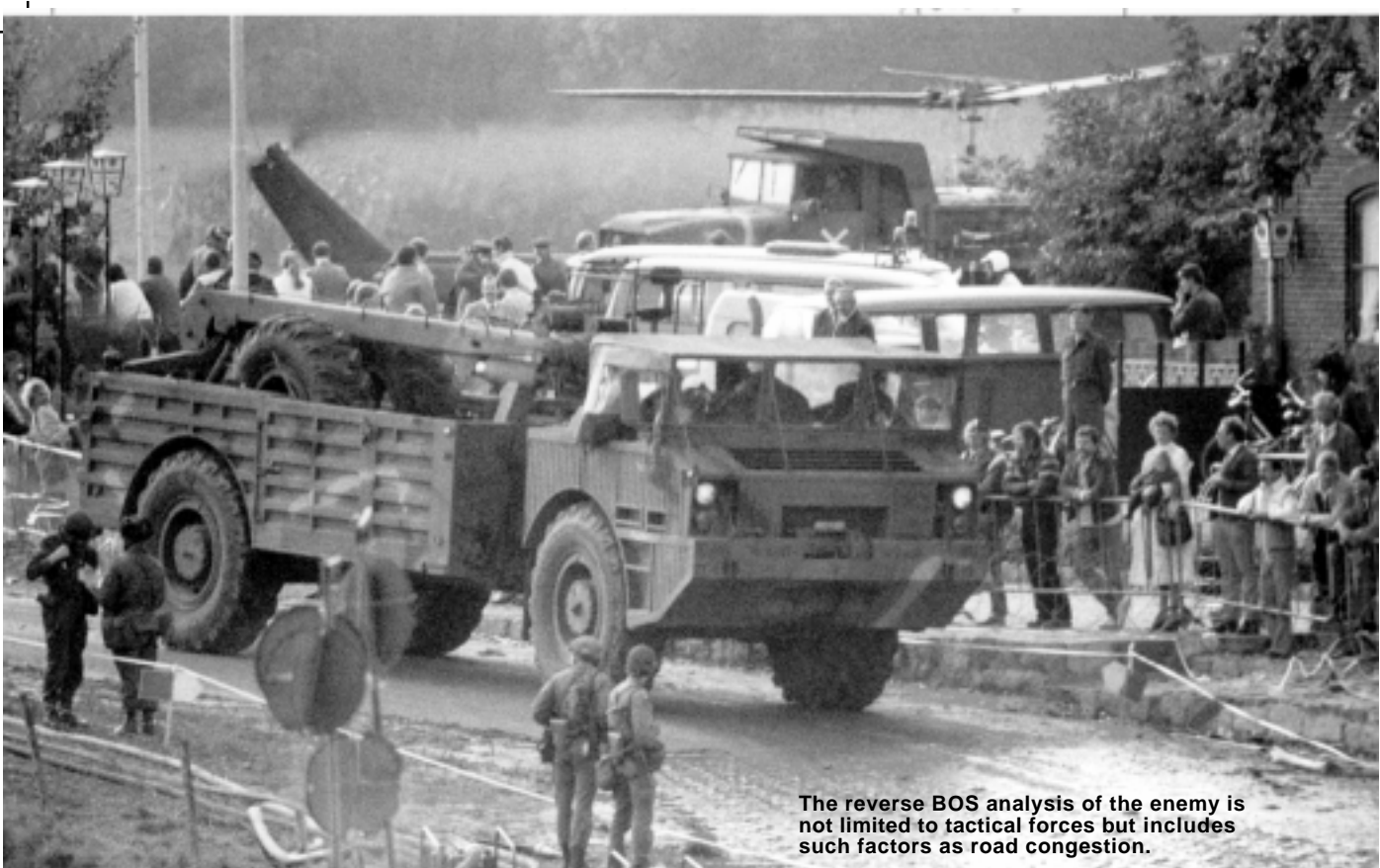
The reverse BOS analysis of the enemy is not limited to tactical forces but includes such factors as road congestion.

As commanders face everyday challenges in garrison and the field, the "enemy" is whatever stands in the way of excellence. Two principal examples are fighting the tyrannies (distance, dispersion, congestion, terrain and weather, and so on) and facing asymmetric threats against our vulnerabilities, such as terrorism. The value comes from seeing the enemy, not in isolation, but in relation to the other factors of the Battle Command Model.

individual considerations; the lines that connect the model's components represent the interdependence of several factors to assemble a coherent and holistic decisionmaking aid.

Visualize. The commander must visualize each operation from the current state along a line of operations to the end state. Through the application of the art of war, the commander gets a picture of the operation in his mind. Intuition, based on experience and education, feeds the art of this process. But, just as a painter must know the primary colors and the combinations that produce complementary colors in order to create a masterpiece, the commander must know the science of war and demonstrate mastery of it. The science of war provides the basis for logic and understanding of his visualization.

The commander uses the battlefield framework to form the visualization. The assigned area of operations delineates the physical volume of space in which the formation will operate. The battlespace is conceptual and includes such things as the area of influence, the area of interest, the information sphere, the flow of reinforcements, institutional capabilities, and so on. Another aid in forming the visualization is METT-TC, the factors of which aid in understanding how the mission relates to the situa-

tion in time, space, resources, and purpose.

Resources available vary based on the level of the organization, but they can be described by the elements of combat power (leadership, maneuver, firepower, protection, and information) and the battlefield operating systems (BOS). For the purpose of visualization, the specific tasks to the formation might not be fully developed, but the overall aim and the purpose of the operation must become clear. In the lexicon of operations doctrine, purpose-based operations facilitate the visualization by establishing early on what is decisive, which shaping operations support the decisive operation, and which sustaining operations facilitate the decisive and shaping operations. These purpose-based operations communicate purpose in spite of physical geometry.

See the enemy. "Battle command is the exercise of command in operations against a hostile, thinking opponent."[8] This is a critical consideration for, as Carl von Clausewitz says, "War is not the action of a living force upon a lifeless mass, but always the collision of two living forces."[9] As a living, thinking adversary, the opponent has a center of gravity (primary sources of moral or physical strength, power, and resistance), capabilities, requirements, and vulnerabilities.[10] From analyses of these,

A rifle squad conducting a situational training exercise.

Confidence expands through repetition, which leads to an automatic response. Soldiers who know how to use equipment properly (technical skills) gain confidence that they can contribute to the mission. Mastery of the art of tactics at the appropriate level and competence in tactical skills give leaders the confidence to make sound decisions and give subordinates the confidence to make recommendations.

commanders determine decisive points, which they connect to form a line of operations. They conduct a reverse-BOS analysis of the enemy to better understand how he will fight. By doing so, commanders can remain enemy-focused, to fight the enemy (in multiple domains) wherever he is (in spite of geography).

This analysis is not limited to tactical employment against an armed force on a traditional battlefield. As commanders face everyday challenges in garrison and the field, the "enemy" is whatever stands in the way of excellence. Two principal examples are fighting the tyrannies (distance, dispersion, congestion, terrain and weather, and so on) and facing asymmetric threats against our vulnerabilities, such as terrorism. The value comes from seeing the enemy, not in isolation, but in relation to the other factors of the Battle Command Model.

See yourself. The initial step for seeing yourself goes back to the Model of Excellence—competence, confidence, discipline, and esprit de corps. Commanders must understand their own centers of gravity, capabilities, requirements, and vulnerabilities. Again, this analysis cannot be completed in isolation; it must take into account the current situation with respect to the other components of the Battle Command Model.

The status of physical forces is only one piece of combat readiness. The aim of warfare is to impose one's will on the enemy. Will is energy and emotion, a passion balanced by judgment and principle.[11] Seeing yourself involves other moral forces, such as personality, esprit de corps, health (physical, emotional, and spiritual), and courage.

See the terrain and weather. The factors of OCOKA (observation and fields of fire, cover and concealment, obstacles, key terrain, and avenues of approach) still serve for terrain analysis, and operational weather forecasts serve well. The weather is the first enemy. Summer heat waves contrast sharply with bitter cold winters, and ever-changing weather conditions challenge operations. The Battle Command Model enables seeing the terrain and weather in relation to the other factors of the model. The effect of terrain and weather is what is important. Knowing there are narrow routes with poor trafficability is useful, but knowing their effect on the enemy, friendly forces, and the military operation is more so.

Describe

Once the commander has assembled his visualization, he must share his vision for it to become

actionable. He must articulate his visualization to subordinate commanders and the staff and describe his visualization of the operation from the current state to the end state, using the terminology and language of the profession to clearly accomplish a shared visualization.

The formal means of articulating the visualization to the entire formation is through commander's intent and commander's guidance. The commander describes how he sees the operation unfolding in time, space, resources (combat power), purpose (decisive, shaping, or sustaining), and action. The uncertainty, ambiguity, and complexity that accompany the fog of war should be mitigated by clear, concise commander's intent and guidance.

Embedded intent. The Battle Command Model addresses commander's intent as "embedded intent" to demonstrate the importance of integration and interdependence throughout the model. The aim of any operation in combat is to impose one's will on the enemy. Based on the strategy employed, the ends, ways, and means for accomplishing that aim differ. The commander's intent clearly establishes the purpose of the operation and the key tasks that must be accomplished in relation to the visualized end state. The intent itself should be actionable and understood two levels down. Since most Army operations are part of a larger unified action, it is important that the intent be nested with the higher commander's mission and intent two levels up.[12]

Time, space, resources, and purpose. The shared visualization that comes from the commander describes the operation in terms of time, space, resources, and purpose. Actions are described in time as simultaneous or sequential. Tempo, frequency, and duration of the operation describe the flow of the action. The timing of the operation, relative to the enemy and conditions, describes time relationships. The relation in space includes mutual supportability based on distances and line of sight, vertical airspace, and the effects of distance on lines of communication and the line of operations. If applicable, the commander should describe the opportunities to pursue an indirect approach to the end state.

A critical part of military action is the commander's decisionmaking. The goal is to enable commanders to make qualitatively better decisions relative to those made by an enemy. Qualitatively better means a right decision, at the appropriate level, at the right time. Being better is not as simple as making decisions faster and more often than can an enemy. For example, making a faster decision to transition to the defense might cause a commander to miss an opportunity for exploitation if the enemy commander decides at the same time to retrograde). Commanders should do everything possible to exploit or deny the enemy's ability to make quality decisions.

Direct

Armed with the commander's intent, subordinate commanders and staffs work to apply resources to achieve the desired end state, adjusting tasks of units in space and time to achieve the described purpose. Commanders communicate the specific task and purpose to each subordinate in the "direct" function. The doctrinal process that drives this military decisionmaking is the operations process.

Operations process. Battle command drives the operations process of planning, preparation, execution, and assessment, and the process cannot be accomplished effectively without everything discussed so far. The operations process begins with confident leader actions based on solid skills (technical, tactical, interpersonal, and conceptual) by those with the character and attributes to command effectively. The commander visualizes the operation, describes it in terms of intent and guidance, and makes decisions to direct tasks to fulfill the purpose of the operation in planning and preparation. The commander continues to make execution decisions (to adjust to the situation, allocate resources to restore the plan, or adapt completely and change the plan). Assessment is continuous. The entire process is not linear, but cyclical. So a crucial part of the Battle Command Model is its continued application before, during, and after operations.

Concept of the operation. The concept of the operation describes how the commander sees the actions of each of his units fitting together to accomplish the mission. The concept of the operation is the integration of the elements of combat power and BOS into the purpose-based operations the commander visualizes, based on the anticipated conditions of METT-TC. The simultaneous or sequential timing of the operation is described from the current state to the end state and includes the decisive operation, the several shaping operations that ensure its success, and the sustaining operations that support them all. Once again, the integration of the blocks in the Battle Command Model enable the concept of the operation to address time, space, task, and purpose in relation to the conditions and is always tied to the embedded intent, which is the result of the visualization.

Running estimate. The concept of the operation establishes common understanding up to execution time. Since the anticipated conditions of METT-TC never survive first contact, the running estimate provides the medium for continual situational understanding. The running estimate begins with mere situational awareness, becomes knowledge with

confirmation, and finally becomes understanding when the commander realizes the effects of changing conditions and adapts. The value of the running estimate is the continual integration of Battle Command Model components, including aspects of safety and managing risk. According to Clausewitz, "Everything in war is very simple, but the simplest thing is difficult."[13] Maintaining situational understanding gives commanders a better chance of overcoming friction. The running estimate must be continuously updated, and striving for situational understanding must become habit.

Leader habit and discipline. The final component of the Battle Command Model brings us back to the Model of Excellence (confidence, competence, and discipline for soldiers, units, and leaders, which breed esprit de corps for deployed units). Leaders of character and competence act to achieve excellence by developing confidence through repeated actions, which become habit. Leveraging competence, nourishing confidence, and instilling discipline and accountability throughout the formation, leaders demonstrate the relevance and power of the Model of Excellence and its integration with the Battle Command Model.

A Pattern of Thinking

Battle command is a pattern of thinking for the entire formation. The Model of Excellence serves as a simple aid for training and development to achieve excellence, and it reflects leadership doctrine. The Battle Command Model incorporates the doctrinal model of visualize-describe-direct, encompasses the unique challenges of serving in deployed locations, and helps develop future leaders—planting the seeds that will germinate and grow throughout thousands of careers.

The enduring benefit of these comprehensive models is that they facilitate an ongoing, holistic view of all operations instead of "stovepipe," BOS-specific views from the staff. As new soldiers and leaders arrive, rapid integration of new personnel is critical to the continual preparation to "fight tonight." Deployed units do not have the luxury of relying merely on the collective experience of thousands of soldiers from dozens of other warfighting headquarters. Deployed units have unique challenges, with unique organizations. They are usually task organized and employed differently from how they were trained in garrison. Deployed units must have soldiers and leaders who think, train, work, and fight using consistent models rooted in Army doctrine.

As a commander seeks a shared visualization of the challenges he faces, he must integrate all of the elements of the five-paragraph field order, address all factors of METT-TC, and conduct running estimates to adapt to ever-changing situations. He must see himself and develop competence, confidence, discipline, and esprit de corps. He must see the enemy, weather, and terrain to discern their effect on the operation. The embedded intent and concept of the operation establish the actions he must accomplish in time and space to achieve a common purpose—victory.

With situational understanding, commanders can "initiate combat on our terms, gain and maintain contact, and seize and hold the initiative. We win on the offense [and through the exercise of battle command, we can] build momentum quickly and win decisively (one hundred to nothing on the scoreboard)."[14] This comprehensive, holistic focus, helps commanders integrate BOS in planning, execution, and during transitions. The devil is in the details, and the art and science of war enable the orchestration of the details into an integrated operation. Commanders give back to the institution by developing future leaders who understand the connections between all of the above: This is battle command. ***MR***

NOTES

1. Sun Tzu, *The Art of War*, ed., Samuel B. Griffith (New York: Oxford University Press, 1963), 129.
2. U.S. Army Field Manual (FM) 3-0, *Operations*, (Washington, DC: Government Printing Office (GPO), 14 June 2001), 5-1.
3. Doctrine is defined as "the fundamental principles by which the military forces or elements thereof guide their actions in support of national objectives. It is authoritative but requires judgment in application" (FM 101-5-1, *Operational Terms and Graphics* [Washington, DC: GPO, 30 September 1997], 1-55).
4. For further discussion of Army leadership doctrine and the Army Leadership Framework, see FM 22-100 (renumbered FM 6-22), *Army Leadership* (Washington DC: GPO, June 1999).
5. Mental attributes include will, self-discipline, initiative, judgment, self-confidence, intelligence, and cultural awareness. Physical attributes include health, fitness, and professional bearing. Emotional attributes include self-control, balance, and stability.
6. Elton Trueblood, *The New Man for Our Time* (Nashville, TN: The Upper Room Press, 1983), 227.
7. The Battle Command Model is derived from the work presented in Battle Command Battle Lab (BCBL) Publication 2.1, *Battle Command* (Fort Leavenworth, KS: BCBL, 1994), 57.
8. FM 3-0, 5-1.
9. Carl von Clausewitz, *On War*, eds., Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1989), 77.
10. For more discussion of centers of gravity, critical capabilities, critical requirements, and critical vulnerabilities, *see* Joe Strange, *Centers of Gravity and Critical Vulnerabilities* (Quantico, VA: Marine Corps University Foundation Press, 1996).
11. For a discussion of moral forces, *see* Clausewitz, 104-107.
12. Unified action includes joint, multinational, and interagency operations aimed at accomplishing a single mission.
13. Clausewitz, 119.
14. Eric Shinseki, remarks from final after-action review, Battle Command Training Program (BCTP) Warfighter Exercise, 17 December 2001.

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Battle Command and Visualization

Lieutenant Colonel Marc LeGare, U.S. Army, Retired

D ESPITE THE BEST EFFORTS of the staff, the plan was unraveling. The scouts reported the enemy moving forward into the security zone instead of staying where the situational template said they would defend from. This invalidated the projected direct and indirect fire plan. The task force commander would have to rely on his lead team commander to find the enemy then develop and issue verbal orders at that point. He felt helpless and unable to provide any other guidance to his lead commander. He was unable to visualize the changes that needed to occur to influence the battle later.

Battlefield visualization, a key component of battle command, is the process of visualizing the unit's current state and a future state (of mission success), formulating concepts of operations to get from one to the other at least cost, and articulating this sequence in intent and guidance.[1] The Army's current attempt at digital command and control (C2) systems will allow better visualization of the battlefield than in the past.

As commander of the 1-22 Infantry Battalion, 4th Infantry Division (ID) (Mechanized (M)), I had the opportunity to test and field Force XXI Battle Command Brigade and Below (FBCB2), which is a digital Battle Command Brigade and Below Control System. FBCB2 uses information-age technology to enable soldiers to receive, compare, and transmit situational awareness (SA) information more quickly than was previously possible and to send and receive C2 messages.

FBCB2 transmits and receives data across the wireless Fixed Tactical Internet (FTI) via the Enhanced Position Location Reporting System (EPLARS) data radio and Single Channel Ground Air Radio System. Each FBCB2 derives its own location via the precision lightweight global positioning system receiver. Through these interfaces, the FBCB2 automatically updates and broadcasts its current location to all other FBCB2-equipped platforms. These radios also transmit and receive C2 messages such as orders, overlays, and reports. The FBCB2 computer is the heart of the system and comes with a keyboard, touch-sensitive screen, and removable hard-disk drive. The system is located inside the vehicle next to the platform commander.

To describe the power of visualization that FBCB2 brings to battalion- and company-level units, a framework is needed to place its importance in perspective. Combat power and its elements provide this framework.

Combat Power and Visualization

Combat power is a commonly used term that describes the resource that commanders use to accomplish the mission. Field Manual (FM) 101-5-1, *Operational Terms and Graphics,* defines combat power as "the total means of destructive and/or disruptive force that a military unit/formation can apply against the opponent at a given time—a combination of the effects of maneuver, firepower, protection, and leadership."[2] Field Manual 3-0, *Operations,* adds information as an element of combat power.[3]

Maneuver. Field Manual 3-0 describes maneuver as "the employment of forces, through movement combined with fire or fire potential, to achieve a position of advantage with respect to the enemy to accomplish the mission. Maneuver is the means by which commanders concentrate combat power to achieve surprise, shock, momentum, and dominance."[4] FBCB2 allows the commander to visualize the effects of terrain, to plan for distributed movement and maneuver, and to monitor execution.

The value of FBCB2 is particularly apparent in two instances of maneuver: the transition from movement to maneuver and the rapid concentration of forces. Using the FBCB2 enemy situational template and the circular line-of-sight tool, leaders can visualize the enemy's maximum engagement line and determine the location of the phase line that triggers

the change in movement techniques from traveling or traveling overwatch to bounding overwatch.

The commander can monitor the progress and formation of subordinate elements and view the transition as units make the appropriate changes. This trigger, which can be rapidly modified via a transmitted overlay or radio call, meets a long-known Combat Training Center (CTC) shortfall of units failing to transition from movement to maneuver.[5] Dismounted infantry units call in enemy spot reports, and the company commander can use a phase line as a trigger to transition from movement to maneuver. Thus, the company commander will have a high probability of gaining visual contact with a small element first, before the enemy gains direct-fire contact on a larger friendly element.

FBCB2 can help maneuver rapidly concentrate forces by generating a geo-referenced icon on all FBCB2 screens. Once the report is posted, units that have been moving or maneuvering dispersed can rapidly move or maneuver to the location and pass through the obstacle breach, choke point, or passage point, or they can link up with another unit. This capability is especially important in limited visibility.

As leaders begin to understand the capabilities of the system, they can develop their own techniques. During field testing, one task force engineer company commander proposed using the bridge report for a breach or bypass. He wanted to speed recognition of the friendly entrance point. Instead of sending out the location as an overlay, which takes time to address, transmit, and bring up, he researched the types of geo-referenced symbols. The bridge report met the need.

The bridge report automatically populates all brigade FBCB2 screens with a bridge symbol at the designated location. A radio call alerts the unit to identify the displayed location and move to its location.[6] As vehicles approach the location, they pick up the far-recognition panel or limited visibility marker and the markings for the entrance to the breach or bypass. This technique cut out the overlay transmission time, populated all brigade screens without having any operator work performed, maintained the common operating picture, and allowed rapid concentration and redispersal of forces.

Firepower. Firepower provides the second element of combat power. Firepower is "the destructive force essential to overcoming the enemy's ability and will to fight."[7] FBCB2 provides a head start on direct and indirect fires that make up firepower. Through spot reports on Red or enemy forces, commanders and crews can make timely decisions on how to control friendly contact with the enemy. Contact with the enemy can be best visualized in terms of time, location, array, and action. At the lowest level of combat, commanders strive to gain visual contact with the enemy before the enemy initiates direct fire. The SA capability allows direct-fire platforms and commanders to picture and construct the engagement so visual contact occurs effectively. The truest indicator of situational dominance is the occurrence of a seamless transition from a digital C2

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system screen to gaining contact with the enemy, using direct-fire optics, with no surprises in between.[8]

Using combinations of enemy template overlay, circular, and direct line-of-sight tools, the commander can visualize the best location, array, and action with which to gain visual and direct-fire contact with the enemy. The picture can be portrayed in an overlay and transmitted to subordinate elements as part of the tactical plan. The commander can apply this capability to both offensive and defensive operations.

Once the operation begins, the commander must still control the unit and understand when and how to make adjustments. With the rapid position updates from EPLRS and spot reports from the brigade's complement of reconnaissance assets, the common operating picture gives the commander a large visualization capability. This capability can also have a positive effect on changing the well-known deficiency of company or team fire planning. This deficiency is noted in trend newsletters in terms of mass, leader control, understanding the plan, focused fires, fires distribution, and shifting fires.[9]

The commander can speed reconnaissance by using the Digital Topographic Support System (currently at brigade level), TerraBase (at battalion level), and the FBCB2 line-of-sight tool (at company level) for tentative positions, with subordinate units confirming positions in traditional fashion. FBCB2 range sketches can be consolidated at platoon level into a platoon overlay, sent to the company commander and consolidated, then forwarded to battalion or task-force level. This process can also be extended to observation plans for reconnaissance-based units and for support-area defense plans.

Protection. Protection is the preservation of the fighting potential of a force so the commander

can apply maximum force at the decisive time and place.[10] FBCB2 has functions that significantly add to force-protection capabilities that units already practice.

Each platform equipped with FBCB2 can set the system for audible warnings when approaching danger zones. These zones are related to enemy direct fire (tied to the last FBCB2 spot-reported location

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and system administrative settings); reported nuclear, biological, and chemical contamination areas; and reported enemy obstacles.

FBCB2 also affords the commander a capability to reduce fratricide risk. The automatic platform-generated location provides a significant tool for commanders (and all FBCB2 users) to understand spatial relationships and to identify potential fratricide situations before they occur. However, all the friendly units on the battlefield are not necessarily digitized. The commander is still responsible for clearing indirect fires, and each leader or platform commander is responsible for proper target identification.

Leadership. Combat power's leadership component provides purpose, direction, and motivation.[11] The ability to visualize the battlefield is essential in leadership. For the commander to exercise effective, decisive battle command, many different aspects of battlefield visualization must come together accurately.

The primary aspects of visualization that positively affect leadership are the projected and evolving interactions between enemy forces, friendly forces, and the terrain. Inside the tactical operations centers of digitized units, the commander, battle captain, and staff have the means of rapidly visualizing these variables. The commander must formulate his concept to move his unit from the current state to the end state of mission accomplishment. His visualization must include projected enemy capabilities, the area of influence or interest and effects, and the current or projected state of friendly forces.

FBCB2 allows this to happen more effectively. Inside the platform, commanders will have FBCB2. Depending on the unit's training level and application of standing operating procedures, commanders can rapidly see the battlefield plan unfolding and gain an appreciation of evolving risk and opportunity. This picture is also shared with subordinate and higher command elements.

The common operating picture provides leadership-related assistance in two ways: through application of senior experience and through commander-to-commander dialogue. As the senior commander observes the evolving engagement, he can rapidly view the situation and ask a well-timed question to prompt a subordinate commander to take appropriate action. One or two results can occur. The subordinate commander, who is probably in name-tag defilade observing his unit, will take corrective action, or he will inform his senior that the appropriate action is in fact taking place.[12] As commanders talk to each other, the common operating picture provides the means for shared visualization. This results in more accurate dialogue and common understanding of intent.

Just understanding that a particular system has a screen, map, and blue positions is not necessarily enough to signal a qualitative improvement over past battle-command systems. By discussing the application of FBCB2 in terms of combat power, the battlefield visualization's utility and value become apparent, even to commanders who have not yet worked with the system. However, the value that digital C2 brings to leadership warrants a closer discussion.

Information. According to FM 3-0, information enhances leadership and the effects of the other elements of combat power.[13] Using the elements of maneuver, firepower, protection, and leadership allows one to easily see the benefits FBCB2 brings to battlefield visualization. However, using the element of information requires focusing the discussion.

The best way to understand the battlefield visualization utility of digital C2 systems is through the commanders' eyes as they discern risk and opportunity. According to FM 101-5-1, risk is the chance of hazard or bad consequences.[14] The Army concept of battle command is to minimize known or projected battlefield risk or at least make an informed decision to take or assume risk.[15] Clearly, any process or system that enables the commander to rapidly identify risk or battlefield opportunity is beneficial.

In the past, commanders relied on staffs and voice transmissions to articulate portions of the battlefield picture. The staff used charts, push pins, maps, and operational graphics, while radio reports provided lo-

cation and status. Clearly, the FBCB2 display, constantly updated with positions (for FBCB2-equipped platforms); the latest enemy reports, operational graphics; and intelligence from higher echelon assets provide a better venue for identifying risk and opportunity.

Risk and opportunity have always been on the battlefield. Given a correct assessment, however, there are many reasons that relate to the combat power of information that might prevent the commander from making the appropriate decision. These reasons might be incomplete understanding, cost or benefit of a possible new decision, and higher headquarters approval.

Despite the best efforts of the staff and subordinate commanders, the commander inevitably asks questions about the current situation, especially when the unit is in contact with the enemy. Unanswered questions or information gaps cause the commander to have an incomplete visualization of the battlefield, which results in delayed or discounted decisions.

Another impediment to visualization is the challenge of weighing the benefit of the change against the cost of changing the plan. This is the typical CTC observer/controller (O/C) battle command comment of "fight the enemy, not the plan." This comment revolves around the commander's unwillingness to change the plan because doing so might result in an unraveling of planned battlefield synchronization. The commander is faced with a decision that will in some perceived aspect cause combat power to become unfocused, affect other elements of the unit, or cause other unintended consequences.

The perceived problem of articulating the rationale and decision to the next echelon commander is also an obstacle. In analog units, commanders rely on common maps or graphics to create a verbal picture to justify their decisions. Granted, the next higher commander does not have to approve all changes, but this type of significant decision is the least performed in units and also the type that can now be much more easily justified with FBCB2.

Clearly, commanders of FBCB2-equipped units can be bold and make changes to their decisions with greater confidence, based on better battlefield visualization.[16] If information gaps are present, commanders can discount them, fill them faster, or take them into account. The commander can also better

A seamless transition from a digital C2 system screen to gaining contact with the enemy—with no surprises in between—is the truest indicator of situational dominance.

Contact with the enemy can be best visualized in terms of time, location, array, and action. At the lowest level of combat, commanders strive to gain visual contact with the enemy before the enemy initiates direct fire. The SA capability allows direct-fire platforms and commanders to picture and construct the engagement so visual contact occurs effectively.

visualize the cost of changing the plan. The mental "what if" and action-reaction-counteraction process can occur more quickly. In some cases, the commander can rapidly synchronize combat-power effects. The common operating picture provides a collaborative environment for dialogue about these significant decisions. Common understanding and better informed decisions can now occur.

Does FBCB2 make bolder commanders? It is hard to say. However, in the Army's current state of transformation, commanders operating with a greater degree of confidence and making better informed decisions might be the result.

Measuring Visualization Effects

Since FBCB2 exists in more than one division and will soon be fielded across III Corps, why are the benefits of battlefield visualization not more apparent? The answer is complex and often lost to the casual observer.[17] Three main issues significantly affect the system's ability to measure or perceive the value or benefit of digital C2 system-supported

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Fort Hood's III Corps took a tremendous step forward to support digital C2 sustainment training when it fielded the FTI, which allows FBCB2-equipped units to train with FBCB2 without having elements of the brigade or division's signal elements present. In short, the FTI acted as a surrogate headquarters element for connectivity purposes, which allowed units to use FBCB2 routinely in the field and in creative digital C2 sustainment-training events.

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decisions. The first issue is the inability to measure the quality of the outcome. The second is how to measure combat power in digital units.[18] The third is incomplete training systems.

Engagements are replicated to near reality and repeated over and over at the National Training Center (NTC)(or any other CTC once digital units become the norm). However, the O/Cs there are not yet prepared well enough to assess the unit's use of digital C2 systems. Although the NTC is "instrumented," valuable battle command assessments still remain focused on analog methods. To remedy this problem, O/Cs should be outfitted with at least the same type of digital C2 system with which the unit comes equipped. Some mechanism for capturing digital C2 data should also be available so O/Cs can coach commanders on how to use information to better picture the battlefield and to make appropriate adjustments.

Combat Training Center O/Cs bring tremendous insight and perspective to training events, yet they are only now able to contribute in a limited fashion to the Army's transformation effort. The Army should take advantage also of data from the numerous training battles. These data would give senior leaders some insight into the progress of the combat unit transformation and identify potential doctrine, organization, training, materiel, leader development, and soldier solutions.

Measuring combat power in digital units is complex. All digitized armor and mechanized infantry battalions were reduced from four maneuver companies to three as they picked up modernized platforms and digital C2 systems. Some subunits were reduced also. The mortar platoon was reduced from six tubes to four, and the scout platoon from 10 vehicles to six. The logistics element of combat battalions also changed. These reductions were necessary for many reasons, but for the most part, they were made to recapitalize portions of the Army.

One can readily see that battalions with three companies, digital C2, and more-capable platforms can fight at least as well as a four-company battalion. At the brigade level, the reduction is more telling. The overall reduction amounts to a battalion (minus) of combat power. The theory behind units that have reduced combat power but enhanced C2 platforms is that they allow battalion or brigade commanders to fight more efficiently. On the other hand, these same units also field the latest model tanks and infantry or cavalry fighting vehicles. Any operational-test officer should be able to see problems arising from any attempt to single out one contributing variable. What is lost in the effort of transformation is the attempt to observe performance differences between smaller digital units and larger analog units.[19]

My own experience, based on two NTC rotations, one with a four-company mechanized infantry battalion and one with a three-company battalion equipped with FBCB2/Army Tactical Command and Control System (ATCCS), provided two unit-level insights: in general, the smaller battalion did not conclude the fight any faster than the larger one did, but in some instances, FBCB2 allowed the smaller battalion to transition faster between missions, especially when finishing a fight at night.[20]

Incomplete Training Systems

The final problem is that of the variables relating to digital C2 training. Training variables can significantly affect a commander's overall ability to visualize the battlefield and make adjustments. Obviously, system operators are the soldiers who receive the training, but some systems also require leader training; however, the pace with which leaders rotate in and out can often marginalize their training.

Under current rules of engagement for equipment fielding, the Army Program Manager is responsible for new-equipment training. When the equipment is upgraded, the program manager is also responsible for "delta" training required to train operators in the latest added capabilities or changes. This can occur quite frequently in an environment of spiral development. Sustainment training to maintain critical skills is most often articulated as a unit responsibility. Most often, the solution is periodic classroom training. Scheduling a classroom, especially at large installations, is an obstacle, however. What commanders need but do not have is an inexpensive solution that will enable the unit to train on its own systems

as part of normal garrison training events.

Even in the best circumstances, operator-training skills can degrade over two to three months. My personal experience indicates that my operators needed routine training on FBCB2 at least once a month while in garrison. Also, they needed to train on incorporating specific digital C2 tasks into each field event. Fort Hood's III Corps took a tremendous step forward to support digital C2 sustainment training when it fielded the FTI, which allows FBCB2-equipped units to train with FBCB2 without having elements of the brigade or division's signal elements present. In short, the FTI acted as a surrogate headquarters element for connectivity purposes, which allowed units to use FBCB2 routinely in the field and in creative digital C2 sustainment-training events. However, commanders must still make tough decisions to leverage limited training opportunities. Digital C2 system training is a prime area for "Sergeants' Time" as described by Command Sergeant Major (CSM) James DePriest, a former CSM for the 1st Brigade Combat Team, 4th ID, who had three years experience with FBCB2.[21]

The current group of commanders of FBCB2-equipped units is voicing an insight with which most commanders will agree. Once units become digital, sustainment training should not entail going back to a centralized classroom. Units need to conduct sustainment training as part of routine business inside

The common operating picture provides leadership-related assistance in two ways: through application of senior experience and through commander-to-commander dialogue. . . . As commanders talk to each other, the common operating picture provides the means for shared visualization. This results in more accurate dialogue and common understanding of intent.

their own footprint.[22] The lack of a resourced Armywide digital training strategy compounds this specific training problem. However, there are units and installations that are moving to implement unique solutions.[23]

FBCB2 can provide battalion, company, platoon, and vehicle commanders the ability to maneuver better, apply firepower more effectively, assume better protective postures, and take advantage of a chaotic battlefield. However, these benefits are not clearly measurable in most instances because of inadequate measuring processes, force reductions, other equipment fieldings, and inadequate sustainment-training support. In an age of fiscal competition, the Army will have to confront these issues to justify digital C2 systems and to continue to set the conditions for a successful Transformation. ***MR***

NOTES

1. U.S. Army Field Manual (FM) 101-5-1, *Operational Terms and Graphics* (Washington, DC: Government Printing Office (GPO), 30 September 1997), 1-18; FM 71-1, *Tank and Mechanized Infantry Company/Team* (Washington, DC: GPO, 26 January 1998), chapter 2; *see also* FM 71-100, *Division Operations* (Washington, DC: GPO, 28 August 1996) *and* FM 71-3, *The Armored and Mechanized Infantry Brigade* (Washington, DC: GPO, 11 May 1988).
2. FM 101-5-1, 1-31.
3. FM 3-0, *Operations* (Washington, DC: GPO, 14 June 2001), 4-3.
4. Ibid., 4-4.
5. U.S. Army Center for Army Lessons Learned (CALL), "NTC Trends and TTPs" (01-12), (Fort Leavenworth, KS), Maneuver Trend 7—Movement to the Objective.
6. This point is important because units in contact should be focused on gaining visual contact with the enemy, not necessarily looking at a screen.
7. FM 3-0.
8. The timing of observing the FBCB2 screen depends on the activity of the platform commander. Before the line of departure, the commander might be viewing the screen frequently. After crossing the line of departure, platform commanders should attempt to gain visual contact with the enemy. Under no normal circumstances should a platform commander visually contact the enemy by looking at a screen.
9. *See* CALL, "CTC Newsletter" (4Qtr FY94), *and* CALL "Special Study, Mar 98: Closing with the Enemy: Company Team Maneuver."
10. FM 3-0, 4-8.
11. Ibid., 4-7.
12. Two personal examples come to mind. I once asked a company commander why a section was moving out of the support-by-fire position. The company commander said the templated position was not, in fact, the best place to be, and he was moving a section forward to the next intervisibility line. At another time, I observed a company's movement stray from the planned axis of advance. Once cued, the commander was able to get his unit back under control.
13. FM 3-0, 4-10.
14. FM 101-5-1.
15. Ibid., 1-134; FM 3-90, *Tactics* (Washington, DC: GPO, 4 July 2001), 1-12.
16. A commander could identify risk by looking at the spatial relationship with the enemy and between Blue forces and graphic control measures; between Blue elements or units; Blue forces and terrain; and so on. Familiarity with the plan, knowledge of the current situation, and a quick glance at the screen is sometimes all a commander needs to

make a quick assessment. This does not relieve any commander from performing the necessary risk assessment before the operation begins.
17. *See* U.S. Government Accounting Office (GAO)/National Security and International Affairs Department (NSIAD)-99-150, *Battlefield Automation: Performance Uncertainties are Likely When Army Fields Its First Digitized Division* (Washington, DC: GAO, July 1999).
18. The terms "digital" unit and "analog" unit oversimplify the strengths and weaknesses of both types of units.
19. LTC John Hadjis, "Making Art Out of Digits," *Armor* (January–February 2002), 24. During NTC Rotation 00-10, Hadjis commanded a small tank battalion that was FBCB2-equipped. His opposing force (OPFOR) kill ratio was almost twice that of larger units.
20. I was S3, 1-16th ID (M), for NTC Rotation 95-05. Task Force 1-16 ID was organized with two mechanized infantry companies, two tank companies, one antitank company, and one engineer company. During NTC 00-10, I was battalion commander, 1-22 ID (M), organized with two mechanized infantry companies, one tank company, and one engineer company. Rapid transitions were not caused by less equipment, but by an application of FBCB2 to speed the process. In one isolated mission, my smaller unit exceeded the performance of the larger unit. To my knowledge, the only OPFOR difference between these two rotations was the OPFOR's change from the Soviet-based model to a more flexible operational concept. In other words, the size of the OPFOR was not reduced.
21. CSM James L. DePriest, "Sergeants' Time XXI," *Armor* (January–February 2002), 22. DePriest's task list is especially prescient in that he emphasizes conducting pre-contact inspections and troubleshooting equipment for which the soldier or unit is responsible.
22. An example is the training technique for command maintenance. As part of command maintenance, the unit can power up digital systems and establish connectivity. Some systems have an embedded tutorial that operators can use as the basis for the training event. Missing, however, is the training-sustainment solution to support the higher level leader skills needed to fully leverage these new systems. A unit-owned, low-cost, scenario-driven system that would allow interaction between platforms and leaders would be a welcome addition.
23. The best example is the U.S. Armor Center, 16th Cavalry Regiment, whose Digital Battle Command Suite is a unique, low-cost, U.S. Army Training and Doctrine Command-exportable training system that will yield terrific results for units that receive these particular career-course graduates.

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Operational Art for the Objective Force

Colonel James K. Greer, U.S. Army

A S THE U.S. Army's Transformation to an Objective Force begins, a host of questions have emerged. What might the Army of the future be called on to do, where, against what opponents, and under what conditions? How will the Army operate in the future joint, multinational, and interagency context? What technological innovations will affect the future conduct of Army operations? How will the Army fight tactically? How will the Army conduct those campaigns and operations that are predominantly land in character; that is, what will be the operational art of the future?

During a series of U.S. Army Training and Doctrine Command (TRADOC) seminar war games and annual Army Transformation war games, observations began to emerge to suggest that warfare was not changing only at the tactical level; the conduct of the campaigns of the 21st century would be significantly different from those of the 20th century.

Operational Art's Development

Before considering the operational art of the future, it is necessary to understand the operational art of the present. During the late 1970s and early 1980s, the Army added the operational level of war and operational art to its doctrine, which became the AirLand Battle Doctrine of the 1986 version of Field Manual (FM) 100-5, *Operations*.[1] The logic and necessity of the argument for operational art was so compelling that the joint community incorporated virtually intact the Army's doctrine into Joint Publication (JP) 3-0, *Doctrine for Joint Operations*.[2] The operational design construct of 1986 grew out of a sustained, detailed TRADOC study of military theory, history, and practice. The combination of insights and conclusions drawn from those three areas of study resulted in the doctrine that enabled the successes of Operations Just Cause in 1989 and Operation Desert Storm in 1990.

Despite the concept of logical, in the place of physical, lines of operations in the 2001 version of FM 3-0, planners of the ongoing counterterrorism campaign face the same challenge as planners of peace-support operations in the Balkans. Today's doctrinal concepts for operational design hamstring planners' and commanders' abilities to design and conduct effective, coherent campaigns for operations across the spectrum of conflict in today's security environment.

Among the key theoreticians examined were Carl von Clausewitz, with his contribution of centers of gravity, fog, friction, and culmination; Henri Jomini, with his derivation of lines of operation and decisive points; and the Russians Triandifilov and Tuchachevsky, with their development of deep battle and the operational level of war. And, because it was the lens through which all activity was viewed at the time, the entire theoretical approach was grounded in Newtonian logic and linear determinism.[3]

The analysis of history that went into developing the operational-design construct for AirLand Battle was equally exhaustive. Study of Napoleon's campaigns reveals the concept of large-formation operations, and the development of all-arms corps that could fight and win a battle on their own, independent from the main army. Helmuth von Moltke's 1866 and 1870 campaigns demonstrated the importance of maneuver. Ulysses S. Grant's campaigns in the American Civil War provided insight into the dynamics of operations distributed in time and space but united in purpose. The German Army blitzkrieg and the Russian Army deep operations in World War II contributed further insight into arrangement of battles and military action in time, space, and purpose.

Soldiers in an M1 Abrams and an M113 experiment with AirLand Battle techniques prior to the deployment of all envisioned equipment during REFORGER 82.

US Army

The operational design construct of [AirLand Battle Doctrine] grew out of a sustained, detailed TRADOC study. . . . [The] historical study focused on campaigns that led to an operational design for large-scale, high-intensity combat against former Warsaw Pact forces. The nature of more recent U.S. military operations and the anticipated future operating environment leads historical study in a different direction.

In the area of practical application, the experiences of the Arab-Israeli wars of 1967 and 1973 were coupled with Cold War preparations for the expected large-scale, high-intensity combat defending the Central Region of Europe against attack by the Soviet Union. Experiences such as repeated multicorps REFORGER exercises, deliberate war planning, and senior-leader war games provided a forum for understanding the challenges of operational maneuver of large formations.

The lessons of theory, history, and practice were molded into the first U.S. doctrinal understanding of the operational level of war and operational art. The close cooperation, both doctrinal and practical, between the United States and other NATO nations quickly resulted in NATO-wide acceptance of the revised Western approach to operational art. The design of the military operation to remove Manuel Noriega from power in Panama in December 1989 and the coalition campaign to liberate Kuwait from Iraqi occupation in 1990 were based on the elements of operational design that formed the centerpiece of AirLand Battle Doctrine.

But times change, and so does the world and its most violent form of human interaction—warfare. The dramatic series of events that began with the fall of the Berlin Wall and that have continued through the current campaign against terrorism resulted in the Army performing a wide range of military operations across the full spectrum of conflict. Peace-support operations in Bosnia, Kosovo, and the Sinai; humanitarian assistance in East Timor, Haiti, andv Rwanda; and domestic support for counterdrug and flood and hurricane disaster response are samples of the many missions the Army performs.

Unfortunately, the current operational-design construct is often incapable of providing planners and commanders the means of designing campaigns and major operations these full-spectrum operations require. Despite the concept of logical, in the place of physical, lines of operations in the 2001 version of FM 3-0, planners of the ongoing counterterrorism campaign face the same challenge as planners of peace-support operations in the Balkans. Today's doctrinal concepts for operational design hamstring planners' and commanders'

abilities to design and conduct effective, coherent campaigns for operations across the spectrum of conflict in today's security environment.

Future Operating Environment

The changing dynamics of the security environment are even more ominous. The future operational environment will be far more challenging for the U.S. Armed Forces than that of today. Freed of the Cold War strategic environment, potential opponents will be more numerous, adaptive, creative, and willing to employ force to achieve strategic goals. Rather than facing opponents trained and equipped to fight along the lines of the old Soviet model, the Armed Forces will face opponents who will combine conventional, unconventional, and information operations in a variety of new and effective ways. Those opponents will take advantage of the global proliferation of cheap, high-technology weapons systems to modernize selected portions of their armed forces, while seeking to take advantage of low-technology asymmetrical approaches to offset the United States' high-end warfighting dominance.

The use of cell phones for tactical and operational control in Somalia and the Balkans; the shooting down by Serbia of an F-117 Stealth Fighter; the attack on the U.S. *Cole,* and the attacks of 11 September 2001 are indicative of the variety and effectiveness of potential threats the Army will face in future operations and campaigns. Yet, not everything will change for planners and commanders of future campaigns and major operations; operational art will remain and—

 Will be about translating strategic purpose into tactical action.

 Will always be joint, multinational, and interagency.

 Will be about campaigns and major operations.

 Will be about the sequencing of battles, engagements, and military activities.

 Will always be integrated with diplomatic, economic, and informational efforts.

 Will be about focusing power at decisive times and places.

Despite anticipated changes in the operational environment, the nature of war remains the same. Even with high technology and the promise of information operations, war remains a nasty, brutal business in which people are killed, and things are destroyed.

Clausewitz's construct of the physical and moral domains of war—domains dominated by danger, exertion, uncertainty, and chance—remains as valid today as it was in 1830. Furthermore, any future warfighting doctrine must retain Clausewitz's focus on commanders and their ability to maneuver forces to bring about battle. Still, how the Army thinks about warfare and military operations will continue to change.

James J. Schneider's construct of the crucible of war is a case in point.[4] During the 1980s, as the Army refined its understanding of operational art, Schneider offered a metaphor that would assist in understanding how the application of military force brought about the defeat of the enemy. His construct was that of a crucible in which military force (heat) was applied against a unit (lead). The transformation of the lead from solid to liquid to gas was a metaphor for the application of physical force resulting in the successive destruction of forces (physical), followed by disorganization of command and control (C2) (cybernetic), and finally disintegration of unit cohesion (morale). Schneider's construct focused more on the unit than on the commander and more on the application of physical force than maneuver. The primary means for applying force in Schneider's metaphor was physical destruction.

The Army continues to see different ways of achieving opponents' destruction, disorganization, and disintegration. Theories of warfare in the information age, such as that expressed in Alvin and Heidi Toffler's book, *War and Anti-War*, offer different opportunities than those of the Industrial Age.[5] Information-age sciences, such as the science of chaos and the theory of complexity, focus on the system and information as the keys to military success. Repeated examples of precise application of combat power over the last decade begin to confirm the validity of these new theories of warfare.

Since the emergence of the 1986 version of operational art, the Army has continued to study the theory, history, and practice of war. Analyses of these three areas, along with an understanding of

Over time, the Mujahideen became fairly proficient baiting and conducting ambushes of Soviet helicopters which were often struck from above. Understanding that all military organizations from armored divisions to guerrilla bands—are systems enables us to describe, predict, and counter their actions in ways that are not possible using Newtonian logic.

Systems are found at all echelons—strategic, operational, and tactical— and range from national electric power distribution grids to long-range reconnaissance-strike to tactical maneuver systems. Many systems are not internal to a single unit or echelon but span multiple echelons and military units either in part or in whole. Some systems are even civilian in composition; many combine civil and military components. Future operational commanders will have to determine which enemy systems must be disintegrated, which can be simply disorganized, which need only have specific capabilities destroyed, and which can be ignored.

the future operating environment and the difficulties of designing campaigns over the last decade, suggests a need for a new construct of operational design. That is, the current elements of operational design might no longer be sufficient to enable the effective planning and execution of campaigns and major operations across the full spectrum of operations.

The science of chaos and the theory of complexity lead to accepting systems theory to replace Newtonian linear determinism as the primary means of explaining how the world, societies, and warfare work. Doing so has profound implications for theories of war because key theories such as those of Clausewitz and Jomini are based on Newtonian approaches. Perhaps more important, systems theory provides significant opportunities to assist in the design and conduct of campaigns and major operations not centered on high-intensity combat, such as peace-support operations, counterterrorism, or unconventional warfare.

Another set of emerging theories is those of the information age, such as found in the Tofflers' treatise. The Tofflers suggest that waves in which all human society changes drive true revolutions. They posit that the Third Wave—the information age— is upon us.[6] Over the past decade, such theories of information operations have grown exponentially, but incoherently. While theories of information operations promise significant changes in the conduct of war, unlike Joimini, it is difficult to translate information theories into practical operational concepts.

A detailed review of historical campaigns and major operations was critical to the early development of operational art. Historical study focused on campaigns that led to an operational design for large-scale, high-intensity combat against former Warsaw Pact forces. The nature of more recent U.S. military operations and the anticipated future operating environment leads historical study in a different direction. While large-scale, conventional campaigns

such as Operation Desert Storm must be studied, historical studies must branch out to encompass the full spectrum of military operations, including expeditionary campaigns and crisis-action operations. Relevant campaigns include, but are not limited to, Vietnam (1945-1975), Somalia (1992-1993), Falkland Islands (1982), Norway (1940), China-Burma-India (1941-1945), Panama (1989), and Kosovo (1999).

> *The new sciences, which simply did not exist 20 years ago, are forcing the Army to realize that all military organizations, in fact all organizations in the world, are systems and that their behavior as they interact with each other can be described and affected using systems theory. A radical departure from traditional thinking is to understand that an armored division is a system in the same manner that a terrorist group is a system.*

To gain insight from current military operations, further study is required in the areas of homeland security (post-11 September 2001), counterdrug operations, counterterrorism operations worldwide, and ongoing operations in Afghanistan and the Philippines. Review of the planning and execution of these campaigns and major operations reveals the difficulty of trying to apply current operational-design doctrine. Centers of gravity, lines of operations, and decisive points are difficult to discern in a complex mix of political, economic, and military peacekeeping efforts in the Balkans or when attacking a worldwide, weblike, self-organizing, transnational terrorist organization such as al-Qaeda.

Five Operational Design Alternatives

A new operational-design construct is needed for the effective planning and execution of future campaigns and major operations. The important question is, what form should that design take? At least five alternatives are currently being examined as operational-design approaches. The five alternatives have grown out of attempts to grapple with the difficulties in applying current doctrine. They include the following:

1. Current doctrine. The current design of centers of gravity, lines of operations (both physical and logical), and decisive points might be sufficient if refined based on current practice.

2. Systems. The systems approach views all military organizations as complex systems and would apply emerging systems and the science of chaos and the theory of complexity to developing an operational-design construct with which to execute the

military equivalent of forcing opposing systems into either chaos or equilibrium.

3. Effects-based. Developed initially from U.S. Air Force (USAF) Colonel John Warden's work, *The Air Campaign*, the effects-based approach describes what effects are required to secure strategic objectives and then conduct military actions that would bring about the required effects.[7] The USAF champions the effects-based approach and has developed it as a concept nested in a broader "Rapid Decisive Operations" concept by Joint Forces Command.

4. Destroy-dislocate-disintegrate. This approach, largely theoretical, seeks as rapidly as possible to conduct military operations and apply combat power to successively (ideally simultaneously) destroy, dislocate, and disintegrate opposing military forces. During the 1990s, TRADOC gained an appreciation for this approach during its series of mobile strike force experiments.

5. Center of gravity (COG) to critical vulnerabilities. The U.S. Marine Corps is examining an innovative doctrinal approach that seeks to translate the theoretical construct of the center of gravity into a practical approach to applying combat power. This approach is to find the critical vulnerabilities of an opposing force—those that will cause its center of gravity to fail—then attack and defeat critical vulnerabilities.

Because development of the current operational art and Schneider's destroy-dislocate-disintegrate model have already been discussed, the next three paragraphs discuss only the remaining approaches to changes in operational art: the systems approach, effects-based operations, and critical vulnerabilities. From an understanding of all five approaches, it might be possible to determine the direction further exploration should take.

The systems approach. There is no doubt that the systems approach must be integrated into any new operational-design construct. The new sciences, which simply did not exist 20 years ago, are forcing the Army to realize that all military organizations, in fact all organizations in the world, are systems and that their behavior as they interact with each other can be described and affected using systems theory. A radical departure from traditional thinking is to understand that an armored division is a system in the same manner that a terrorist group is a system—as are carrier battle groups, fighter squadrons, and maintenance detachments.

Understanding military organizations and opponents as systems enables us to describe, predict, and counter their actions in ways that are not possible using Newtonian logic. For example, in a Battle Command Training Program warfighter exercise, we can model fairly well, using Lanchester Equations

These soldiers of the 99th Infantry Division reached their state of "equilibrium" when they had no alternative to enemy action and surrendered during the Battle of the Bulge, December 1945.

Systems theory shows that most systems exist in a state of complex interaction with their environment and other systems. Systems that are unable to cope with or adapt to changes in their environment or that are the result of interactions with other systems are forced out of complexity and into one of two other states. Those two states are equilibrium and chaos. Equilibrium is a state in which the system is incapable of any productive activity. Chaos is a state in which there is a great deal of activity but no purpose or direction.

based on linear mathematics, the movement and combat of units and formations.[8] We can evaluate the results of combat between two opposing forces, but we could never model the effect of reduced C2 capabilities or morale. However, application of systems and complexity theories enables entity-based modeling that, in turn, can demonstrate the impact of the loss of communications or the moral impact of a successful turning movement.

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An army unit is in a state of complexity if it is conducting an operation successfully, has positive command and control, and is adapting to changes

in the environment or enemy action. If the same army unit was placed in a situation in which it had no alternative to enemy action and its soldiers had surrendered, that unit would be in equilibrium. Take the same unit, destroy its cohesiveness and command and control so activities are uncoordinated, and some elements will break ranks and retreat. The unit would be in chaos.

Some examples of systems in equilibrium are the French Strategic Command during the German Blitzkrieg of 1940; the Iraqi Air Defense System after the initial strikes of Operation Desert Storm; and the Soviet Union in 1989 when the Warsaw Pact disintegrated. Some examples of chaos are the French tactical forces opposing the German Blitzkrieg of 1940; the Iraqi Army during the Desert Storm ground operation; and the United States during the later stages of the Vietnam war (1967-1971).

Applying systems theory to military operations is simple in some respects, difficult in others. Military organizations have always been systems, we just did not know it for the first 5,000 years or so. On the other hand, understanding and applying the science

of chaos and theory of complexity requires education in new terms and patterns of thinking. For example, system theory states there are seven attributes to any system. These seven attributes are powerful tools to describe a system and actions that can defeat that system, but those attributes must be

> ***All future campaigns will be combinations of conventional, unconventional, and information operations. Opponents will employ these three types of conflict in different combinations for each scenario. The United States and its allies must be prepared to counter and defeat all three. This is a fundamental change from the U.S. military establishment's focus on conventional warfare to the exclusion (except in Special Forces) of unconventional and information warfare.***

learned, understood, and applied. Below are the attributes commonly used to describe a system and to understand how it functions:

Aggregation is the attribute of a system that enables adaptation when encountering more complex problems by combining (aggregating) smaller agents or subsystems into larger subsystems to perform critical tasks. A military example of aggregation is organization into successively larger formations or echelons (battalion–brigade–division–corps or squadron–group–wing–air expeditionary force).

Building blocks are the components of the system that are aggregated to provide new capabilities and can be existing agents, meta-agents, subsystems, or new components the system creates to adapt to new challenges. The military equivalents are units or weapons systems.

Tagging is the means by which the system identifies its component parts as it functions or adapts. Military examples are unit guidons, designations (11th Cavalry), or e-mail addresses.

Flows are the movement of agents, resources, or information through the system. Military examples are the movement of units through the air or over land or sea; the distribution of ammunition or fuel throughout a unit; or the passing of orders through the C2 system.

Tnternal models are coping mechanisms that a system has employed or will employ to successfully adapt to or overcome challenges to its functioning and existence. A military example might be battle drills or evasive maneuvers to avoid antiaircraft missiles.

Diversity is the attribute of a system wherein it uses a variety of agents, models, and building blocks

to create multiple ways of adapting and surviving. A military example is the use of a variety of combined arms in battle.

Nonlinearity is the means by which systems avoid predictable and deterministic behavior in order to have the versatility and adaptability required to remain viable and productive in complex situations. The military example in this case is innovation, out-of-the-box thinking, and asymmetrical operations.

The practical application of systems relates to the variety of systems potential that opponents might employ. Such systems are found at all echelons—strategic, operational, and tactical—and range from national electric power distribution grids to long-range reconnaissance-strike to tactical maneuver systems. Many systems are not internal to a single unit or echelon but span multiple echelons and military units either in part or in whole. Some systems are even civilian in composition; many combine civil and military components. Future operational commanders will have to determine which enemy systems must be disintegrated, which can be simply disorganized, which need only have specific capabilities destroyed, and which can be ignored.

Effects-based operations. The effects-based approach to operations that grew out of Warden's book has considerable merit from the standpoint that it focuses on what effects are desired rather than simply applying force aimed at destruction.[9] In Warden's model, airpower should always be applied to gain strategic objectives. The primary target of airpower has been the opposing strategic leadership, with supporting targets of organic essentials, infrastructure, population, and the Armed Forces. Joint Forces Command is examining the USAF effects-based operations (EBO) cycle as a concept within the broader rapid decisive operations concept.

The EBO cycle provides a strong strategy-to-task linkage, but it provides no methodology for the integration of the desired effects into a broader campaign or major operation. Instead, the EBO cycle is optimized for deciding if and how to "take down the enemy power grid," but it provides no framework for deciding if the Army should. Given that strategic attack has almost never brought about the desired end state, the EBO cycle can be used in execution of a campaign, but it contributes little to the design of that campaign. Yet, effects-based thinking is absolutely critical to a systems approach to campaign design.

Critical vulnerabilities. Joe Strange, of the U.S. Marine Corps University, proposes a practical approach to operational thinking that seeks to take the theoretical construct of Clausewitz's center of gravity and derive from that construct military tasks that

can accomplish strategic objectives.[10] Strange's approach is to identify the enemy COG, then identify the critical capabilities (CC) of which it is made. Having identified the critical capabilities, Strange derives the critical requirements (CR) that the CC must have to accomplish the enemy's purpose. From the CR he derives the requirements that have specific vulnerabilities that can be attacked and defeated. The concept is that attacking and defeating critical vulnerabilities removes CR, without which the CC cannot enable the enemy COG. The importance of Strange's concept is that he provides a systematic method for translating the often-nebulous concept of the COG into meaningful military tasks. Yet, in a way, this is a high-value/high-payoff target approach to operational planning. As such, it treats the opposing force as a house of cards, with hope that removing a few key cards will cause the entire enemy structure to fall. From a historical viewpoint, this has almost never been the case, and one of the prime reasons for developing operational art was that, by the 20th century, armies (as well as navies and air forces) had grown so large and resilient that no single blow could defeat them.

Bringing It All Together

As U.S. Armed Forces carry out the global war on terrorism, while also looking toward future security requirements, some key insights are apparent. All future campaigns will be combinations of conventional, unconventional, and information operations. Opponents will employ these three types of conflict in different combinations for each scenario. The United States and its allies must be prepared to counter and defeat all three. This is a fundamental change from the U.S. military establishment's focus on conventional warfare to the exclusion (except in Special Forces) of unconventional and information warfare.

The current conventional campaign-planning construct must be retained, which means there will still be campaigns against state opponents with primarily conventional military forces. Defeat of those forces will require the military to design portions of future campaigns around centers of gravity, decisive points, and lines of operations leading to conventional battles and engagements.

The destruction, disorganization, and disintegration of selected enemy strategic, operational, and tactical systems will enable rapid, decisive defeat of enemy forces. The military has used precision-strike to negate enemy strategic systems, such as electric power grids. In future campaigns, land forces will have to lead efforts to defeat opposing operational systems, such as reconnaissance-strike and distribution of petroleum oils and lubricants. Land forces will use combinations of fires, electronic warfare, information operations, and special forces, supported by air, space, and naval capabilities. Successful campaigns will require a moral component to gain support of neutrals, reinforce the support of friendlies, and break the morale of opponents.

These insights suggest a broad outline of a new construct of operational design for the Armed Forces in the 21st century. This construct is one that has significant implications for the design of the Army's Objective Force. Future Army forces must be designed with the qualities of campaign durability required to fight combinations of battles and engagements over increased space and time. At the same time, Army forces must have new capabilities that enable identification and understanding of opponents' systems and possess the requisite attack capabilities to defeat those systems.

Future Army forces must be truly full spectrum. That means leaving behind the almost total focus on physical force and developing balanced capabilities to attack the physical, mental, and moral aspects of opponents while retaining the core ability to take, hold, and control the ground. Such a transformation of U.S. Armed Forces must be accomplished in the full meaning of design—doctrine, training, leader development, organizations, materiel, and soldiers—to enable operational commanders to plan, prepare, and execute campaigns and major operations incorporating the elements of operational design. *MR*

NOTES

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The Battle for Objective Area Alpha

Lieutenant Colonel Scott R. McMichael, U.S. Army, Retired;
Colonel Peter J. Zielinski, U.S. Army; and
Colonel Brian Zahn, U.S. Army

USING THE STORY of a battle as a device for illuminating important themes and lessons regarding the art of war is a time-honored practice. In the example here, the battle is in the future. The theme is tactical operations. The goal is to present a picture of how the future Objective Force will fight at the tactical level.

The scenario is simple and familiar. A U.S. ally is attacked by a regional aggressor and is in danger of being overrun. Time is of the essence. The aggressor hopes for a quick victory that would make external intervention more difficult. The United States understands that the longer it delays, the more advantages accrue to the adversary to achieve its strategic objectives and to prepare more fully to defeat intervention.

Faithful to its commitments, the United States responds immediately to counter the aggressor while building a coalition of like-minded states. The first phase of the joint campaign—initial entry operations—has been completed, and the joint task force (JTF) is preparing to seize the initiative.

Entry Operations

After returning from face-to-face meetings with local police authorities, Colonel Ralph Donnelly, commander of the 1st Combined Arms Brigade (CAB), focused on the displays in his command vehicle. He reviewed the courses of action (COA) the staff had just completed in response to the digitized operation order (OPORD) and operational graphic received earlier from division headquarters. The brigade had been in country for just 10 days, and already, the joint force was transitioning from an initial defensive posture to offensive operations.

The JTF commander directed the brigade—the initial maneuver formation in the joint force flow—to deploy as rapidly as possible to defend the ground approaches to the host-nation (HN) capital. The brigade, with joint air support, was to prevent the seizure of the capital.

Deploying by multiple means, the brigade surprised the enemy with the speed, location, and power of its projection into the HN capital region. Three of its six combat battalions, with the brigade headquarters, deployed by air to unimproved airstrips and unprepared landing areas near the capital. They bypassed the main commercial airport and military air base that the enemy had targeted effectively with improved, long-range precision munitions. The other three battalions deployed via shallow-draft, high-speed sealift under the deputy commander's control, coming ashore near several small fishing towns about 200 kilometers from the capital. They also avoided the main seaport, which had been subject to long-range enemy interdiction.

Deploying in combined arms unit configurations with integrated sustainment packages eliminated the requirement for reception, staging, onward movement, and integration (RSOI) within an assembly area and enabled all six battalions to move quickly from debarkation into pre-planned defensive positions near the capital. In doing so, they surprised and destroyed the enemy's advanced elements in the near approaches to the city. Nearly simultaneously, an infantry regiment from the Marine expeditionary brigade sea base deployed to block enemy advances along the littoral.

Donnelly's command group included the temporary attachment of two observers from the Center for Army Lessons Learned (CALL) at Fort Leavenworth. The commander wanted to capture all of the significant operational lessons during the campaign. He and the CALL team had discussed the extraordinary level of strategic responsiveness and versatility the new strategic-lift platforms provided. Those capabilities, plus the streamlined force structure of the Objective Force, its lighter platforms, and reduced logistic infrastructure, with substantial elements of the overall force remaining outside the joint operations area (JOA), enabled the brigade to complete its multi-modal deployment

within 96 hours. The brigade then moved immediately off the ramp to fight its way into initial defensive operations.

The commander stressed the importance of improvements in joint interoperability with respect to command, control, and communications and intelligence (C3I) systems. These systems, with en route planning and rehearsal, permitted the commander to do several tasks. He could see the deployment status of each element of the brigade; receive and automatically distribute frequent updates of the enemy and friendly situation in the JOA; and war game several initial-entry COAs while en route. In fact, en route situational awareness across the joint force allowed the JTF commander to redirect one of the air-delivered battalions into a fall-back air strip when it became clear that the enemy advance would place one of the planned aerial ports of debarkation within enemy artillery range.

Joint air and maritime power was critical to the success of entry operations. These forces, including the integrated air/missile defense network, were largely responsible for overcoming enemy anti-access measures and for setting the conditions for early entry ground forces through attrition of the enemy's air and maritime power, long-range precision engagement capabilities, and forward immediate-action drill systems. Information operations—focused on reducing the enemy's ability to maintain actionable visibility of U.S. force flow, timing, and intent—blinded, confused, and deceived the enemy. Information operations included denial of air space to the enemy's forward reconnaissance aircraft, including unmanned aerial vehicles (UAVs); interruption of satellite feeds; computer network attack aimed at reducing the enemy's ability to collect and process information and exercise battle command; and deception regarding entry points and timing.

Overall, these shaping operations allowed the rapid introduction of the 1st CAB, which immediately expanded the lodgment area and moved to close off approach routes to the capital city. Organic joint linkages through interoperable battle command and intelligence networks permitted the brigade to coordinate directly for joint fires and to receive near-continuous information updates in the short interim before the arrival of the division early entry command post. Coordination with local HN military and police forces and previously deployed U.S. special operations forces (SOF) elements strengthened the brigade's ability to guard against unconventional threats detected through human intelligence (HUMINT) sources.

The result of this integrated joint entry operation was remarkable. Despite the absence of strategic surprise—the enemy clearly had visibility of U.S.

deployment preparations via HUMINT and the news media—the speed of entry operations allowed the joint task force to achieve operational surprise, beating the enemy to one of the key initial objectives. Although the enemy had occupied a significant portion of the HN territory, the denial of capture of its political center as a result of the Objective Force's deployment compelled the enemy to reconsider his campaign goals. Moreover, as the joint task

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force rapidly built joint combat power, the enemy found that his vulnerability to air- and ground-based precision strike forced him to abandon large-scale maneuver, which restricted his offensive operations to periods of limited visibility.

Within a short time, these disadvantages forced the enemy to shift his focus to consolidating current gains and to assume the defense, first locally near the capital, then more broadly across the entire force. Although he might have made a major effort to invest the capital and push through the brigade, the cost would have been great, with no assurance of success, given the rapid closure of the additional brigades comprising the initial Objective Force division's air-ground task force.

The enemy adopted a defensive strategy, hoping to draw out the conflict and make the United States pay a high price in time, casualties, and resources. In essence, the high level of strategic responsiveness and the synchronized introduction of the U.S. joint contingency force precluded the enemy from achieving a critical early objective and forced him to fall back to a less certain strategy.

Donnelly reminded the CALL team of the difference between this entry operation and that of Operation Desert Storm: "The world has really changed since the Gulf War. I was the executive officer (XO) of a Bradley infantry company that was part of the first heavy division to deploy. We waited weeks for strategic transport and logistic structure to fall into place, followed by more delay when we finally

> *The enemy force was largely a 1990s-vintage mechanized army with small air and naval forces, but it possessed some advanced niche capabilities with respect to long-range fires, communications, target acquisition, and first-generation UAVs. U.S. intelligence reports assessed enemy training readiness and leadership as above average compared to other regional forces, but still short of U.S. standards.*

arrived because of our time-consuming RSOI and then our forward movement into initial defensive positions. During that time, the only maneuver forces on the ground were 82d Airborne units holding a thin line in the desert. Frankly, we were fortunate that Saddam Hussein was not a more aggressive military commander because it would have been near impossible to hold that line against a mechanized advance."

Seizing the Initiative

With the first division's task force of four brigades fully closed, the second division's task force closing fast, and the remainder of the Marine force en route, the JTF commander intended to seize the initiative from the enemy. He studied the enemy dispositions displayed on the joint common operating picture (COP) and thought about the updates he had received during alert and deployment.

The enemy force was largely a 1990s-vintage mechanized army with small air and naval forces, but it possessed some advanced niche capabilities with respect to long-range fires, communications, target acquisition, and first-generation UAVs. U.S. intelligence reports assessed enemy training readiness and leadership as above average compared to other regional forces, but still short of U.S. standards.

The enemy fought best in conventional mounted scenarios, employing mass and momentum against his overmatched neighbors. However, the enemy had been observed over the past several years to have developed increasing competence in decentralized maneuver by avoiding patterns and templates coupled with coordinated indirect-fire strikes that massed effects from dispersed units. Every indicator pointed to an increasingly sophisticated operational style, balancing offense and defense, with investment in the C3 and ISR systems necessary to support complex operations. However, the authoritarian nature of the regime with its endemic barriers to initiative and independent thought naturally stifled and limited the pace of progress.

Although hoping to avoid U.S. intervention in the conflict, the enemy had nevertheless prepared for confrontation. He had a good sense of his own strengths and weaknesses, vis-à-vis U.S. forces, and he knew that he had little chance of sustaining offensive operations in the face of U.S. joint precision strikes. Assuming the defense, he had dispersed his forces and occupied mutually supporting, networked defensive positions anchored by combined arms strongpoints. Many were based within the sanctuary of built-up areas and complex terrain. He was actively fortifying and stockpiling, with special effort toward building redundant, resilient communications networks. He employed deception widely and was husbanding his indirect-fire capability for focused fire strikes against lucrative U.S. targets. His disposition was organized to deny the best air and ground avenues of approach. His defense of these approaches was further strengthened by the dispersal of dismounted infantry, antiarmor, and manportable air defense systems (MANPADS). By and large, his fighting platforms and fire units matched U.S. capabilities in range. This parity gave advantage, in general, to the side that shot first.

Overall, the enemy presented a tough nut to crack—a complex systemology with no single point of failure within the defensive scheme. Fortunately, the rapid deployment of Objective Force units limited the time available to the enemy to strengthen defenses. Long-range precision fires would generate some significant attrition against the enemy but would fall far short of decisive effects and would likely produce excessive collateral damage, a result that the host nation desperately hoped to avoid. Ultimately, this enemy would have to be destroyed in detail by ground combined arms battalions, or he would have to be flushed into the open and destroyed by all-source precision fires.

Instead of a 20th-century campaign of attrition and deliberately sequenced operations, however, the JTF commander intended to pursue a campaign of dislocation and disintegration through joint simultaneous engagement focused against key capabilities and forces within the enemy systemology. The combination of joint precision strike, to keep the enemy dispersed and relatively immobile, and the all-arms capabilities of the Objective Force, to root out and destroy those forces, would afford the enemy no rest or relief and no means of responding effectively to a relentless, multidimensional assault.

After extensive supporting analysis, the joint commander concluded that at this point in the campaign, he could directly attack several elements of the enemy's military center of gravity. This would include key enemy forces to the east of the capital, the lines of communications (LOC) that supported

Artist's conception of Theater Support Vessels and helicopters utilizing stream-lined external-load technology conducting landings at a remote location.

The other three battalions deployed via shallow-draft, high-speed sealift under the deputy commander's control, coming ashore near several small fishing towns about 200 kilometers from the capital. They also avoided the main seaport, which had been subject to long-range enemy interdiction. Deploying in combined arms unit configurations with integrated sustainment packages eliminated the requirement for RSOI within an assembly area and enabled all six battalions to move quickly from debarkation into pre-planned defensive positions near the capital.

those forces, and two operating bases located within enemy territory (shielded within urban areas) that anchored enemy LOCs. The JTF commander's ground campaign called for two Objective Force divisions to conduct simultaneous, noncontiguous major operations against enemy forces disposed within the host nation to split those forces into progressively smaller fragments. Simultaneously, joint fires would continue deep interdiction, support to ground operations, and targeting of key enemy capabilities such as battle command and ISR nodes; long-range artillery and missile forces; and logistic elements. Also, Marine Corps amphibious forces would complete deployment ashore to secure the littoral and the right flank of the land area of operations (AO), presenting a parallel threat to the enemy's littoral. Subsequently, advancing Objective Force formations would maneuver laterally to cut LOCs and dislocate enemy forces, with operational maneuver by air of one or more brigades directly against the enemy operating bases just across the international boundary. As these operations succeeded, enemy forces occupying territory north and west of the capital would become increasingly dislocated, irrelevant, exposed, and in danger of encirclement.

The Brigade Order

The abbreviated OPORD and operational graphic that the brigade had received laid out a brigade AO extending over a 75- by 100-kilometer area east of the capital—a large area to cover even with six combat battalions assigned. The mission required the brigade to destroy two brigades of the enemy's 12th Infantry Division (ID) (Mechanized (M)) and other supporting forces and prepare to conduct a second battle without pause in a major reorientation to the north to cut LOCs and isolate the remainder of the enemy's 15th Corps. Two sister brigades would be conducting simultaneous attacks against the enemy's 10th and 11th ID (M) (15th Corps) farther to the northeast, with similar follow-on missions. Host-nation forces would follow and deal with bypassed and remnant enemy elements.

Per brigade battle rhythm, Donnelly used the afternoon secure video-teleconference to issue his attack order to his six subordinate battalion commanders and to the brigade staff.

"Gentlemen, as you know, our mission is to destroy the 34th and 35th mechanized brigades within the enemy 12th ID (M) and continue the attack north to cut enemy LOCs, thereby isolating the 15th Corps

while the 2d and 3d Brigades conduct simultaneous, noncontiguous attacks. You have collaborated directly with the staff and with me during the planning process, so it will come as no surprise that I have selected COA 3 for execution.

"As you can see on your command displays, this COA designates four battalion objective areas (OA), designated A through D, within the brigade

> ***The mission required the brigade to destroy two brigades of the enemy's 12th ID(M) and other supporting forces and prepare to conduct a second battle without pause in a major reorientation to the north to cut LOCs and isolate the remainder of the enemy's 15th Corps. . . . Donnelly used the afternoon secure video-teleconference to issue his attack order to his six subordinate battalion commanders and to the brigade staff.***

AO. Each OA incorporates one or more enemy battalions dispersed within integrated strongpoints. Because the battalion OAs also include key enemy C3 nodes, critical ISR, and supporting fire units, my assessment is that their seizure will render both enemy brigades largely ineffective, negating any requirement to engage all enemy division elements in the brigade area.

"As the 1st through the 4th Future Combat System (FCS) battalions attack the four primary objectives, I intend to vault the 5th Battalion by air into temporary defensive positions in the rear of the enemy division to block withdrawal or reinforcing elements, secure key ground transportation nodes, and pre-position the battalion for the follow-on engage-

ments. The 6th Battalion, uncommitted at the beginning of the battle, will support the rest of you with non-line of sight (NLOS) fires and simultaneously maneuver in depth. Brigade reconnaissance, surveillance, and target acquisition elements will lead, to initiate the follow-on battle to the north without pause (in coordination with the 5th Battalion) and maintain pressure on the enemy. I will move with the 6th Battalion.

"I estimate that the initial battle will be completed within 36 to 48 hours, but we are going to continue to advance and to transition immediately into the subsequent set of engagements. Therefore, I want you to conserve on-board munitions, consistent, of course, with the way the battle unfolds and without compromising freedom of action, effectiveness, or survivability. Shoot for a goal of 50 percent with respect to both line of sight (LOS) and NLOS rounds. Fuel should not be a problem, considering the distances we have to traverse and the speed with which we expect to break down the enemy's defenses and shatter his coherence.

"You can see from the task organization that the division has allocated considerable support to the brigade battle. In just a moment, the fires/effects coordinator will run through how the division will cover the counterfire mission, support attacks with planned fires, and shape the battle in terms of isolating and neutralizing other enemy elements within the brigade AO. We will discuss using planned and on-call joint fires for the air assault and deep maneuver, as well as aviation and armed UAV assets. This support will enhance freedom of action, support rapid movement to the objective areas, and help conserve on-board munitions for the next fight.

"Of course, the enemy could prove tenacious. We might run into a few surprises although I think our

The Future Combat System — Today

The Future Combat System (FCS) is the networked system of systems that will serve as the core building block within all tactical maneuver echelons to develop overmatching combat power, sustainability, agility, and versatility necessary for full-spectrum military operations. It is composed of a family of advanced, highly mobile, networked space-, air- and ground-based maneuver, maneuver support, and sustainment systems that will include manned and unmanned platforms. The FCS also includes suites of information technologies, RSTA networks, and battle command systems that will permit the tactical unit to operate at a level of synchronization heretofore unachievable.

The largest FCS systems will be lighter than current mechanized systems with each element possessing common or multifunctional characteristics. FCS units must achieve all organizational characteristics in the Army Vision.

Many FCS platforms will be multifunctional and modular, combining two or more tactical functions such as assault and indirect fires, air defense, forms of RSTA, network communications, battle command, and mobility support. Other platforms, such as unmanned aerial and ground vehicles might be single function. FCS platforms will be able to engage enemy forces with LOS and NLOS fires at extended ranges.

— Future Combat System Mission Needs Statement, U.S. Army Adjutant General School, Fort Jackson, SC

The enemy fought best in conventional mounted scenarios, employing mass and momentum against his overmatched neighbors . . . [and] had been observed over the past several years to have developed increasing competence in decentralized maneuver. . . . Instead of a 20th-century campaign of attrition and deliberately sequenced operations, however, the JTF commander intended to pursue a campaign of dislocation and disintegration through joint simultaneous engagement focused against key capabilities and forces within the enemy systemology.

situational understanding at this time is top drawer. We know how tough it can be to clear and secure urban areas, even small ones. I have directed the deputy commander to conduct preliminary planning in case we have to cycle battalions through mission staging during transition. The 1st Battalion will have the toughest engagement. I want to have at least one fully replenished combat battalion for the turn to the north, so I want the 1st Battalion, as an exception, to plan from the start for replenishment before its follow-on engagement. Division will configure sustainment pulses for on-call replenishment if anyone else is delayed or exceeds consumption goals when coming out of initial engagements.

"You all understand how important it is to maintain and update situational awareness during combat operations. I want you to remain cognizant of how the entire brigade battle is proceeding in case we have to make in-stride adjustments, either to respond to a challenge or to exploit an opportunity. This is going to be a fluid battle. I am counting on the XO, as my chief information officer, to maneuver the brigade C3 and ISR network to ensure continuous support. We must keep our eyes on everything in the brigade AO and be prepared to respond to

any unforeseen development, even though our focus is the battalion OAs. Each battalion must use its organic RSTA to fill in the gaps that remote sensors cannot see and to fight for information when required. As stated earlier, brigade RSTA will focus on the deep maneuver and develop the situation for subsequent engagements.

"Let's run the animation to show how I see the flow of the battle, particularly the synchronization of air and ground maneuver and the fire plan. Then we will answer questions on the overall concept and commander's intent before we move on through the rest of the order. I want to finish this in the next 20 minutes, then get graphics and collaborative briefbacks from the battalions within another hour. Our attack begins 8 hours from now."

The division allocated considerable support to the brigade battle, including a two-battalion fires/effects task force, sufficient aviation lift for the air assault, two Comanche reconnaissance/attack companies, an armed UAV platoon, plus bridging and breaching assets. Given the light enemy air threat and the division's responsibility for the local air and missile defense (AMD) umbrella, division retained control of its AMD assets, particularly to ensure support for

tactical air assaults and the deeper operational maneuver. The combination of joint (airborne laser), division (ground-based laser and missile), and organic battalion assets (FCS-mounted, short-range missiles) would be employed to deal with the enemy's low-level UAV and rotary-wing threats through the Integrated Airspace Control Network.

FCS Battalion Operations

Lieutenant Colonel Rick Reagan, 1st Battalion commander, switched off the video link and studied the battalion objective area—OA Alpha—more closely. The center of mass was approximately 30 kilometers from his current dispositions. The OA represented the heart of the enemy brigade's webbed defense. Irregularly shaped, it included the better part of two enemy mechanized battalions, three cannon batteries, and a short-range air defense missile battery organized into six company-size strongpoints and distributed over three small towns and the partially forested, hilly area surrounding them. If Reagan could destroy the strongpoints and the associated C3 network and control the key terrain, the brigade defense would largely collapse. A string of ground reconnaissance elements maintained a number of forward outposts and four other enemy strongpoints. An enemy reserve company was outside the OA, but it was close enough to affect the attack. The brigade would act to isolate the nearby strongpoints and fix the reserve company from responding, while division fires conducted preemptive counterfire to destroy the cannon batteries. The battalion would have the responsibility of avoiding or sweeping away the enemy covering force and responding to the enemy's mortars with its own organic target acquisition and indirect-fire systems.

As Reagan collaborated on options with his staff, subordinate commanders monitored their discussion on the command "electronic whiteboard." Noticing the XO's and S3's smiles as they exchanged glances, Reagan asked, "OK, what's the inside joke?"

"Well sir," replied the S3, "It does not seem quite fair to the enemy. This is the first major battle in an AO where we have never deployed before, but it is not really new. The battalion has trained against similar dispersed, strongpoint-based, defensive dispositions at the National Training Center and at the new Joint Urban Warfare Training Center. Plus, all of our training scenarios incorporated some mix of unconventional and asymmetric threats. In addition, during sea deployment, our en route mission planning and rehearsal system applications permitted us to run virtual exercises against this very enemy division on real-world digitized terrain in the same general area as our current objective. Virtual exercises

are not the same as fighting, of course, but there is no question we have already acquired a high level of knowledge and familiarity with the enemy, the terrain, and the overall operating environment before we have to fight."

"Those are good points and good reasons for all of us to feel confident, but not overconfident," Reagan cautioned. "That certainly bears out how important it is to train as we fight. But, as long as I am reviewing fundamentals, I want to reinforce three essential operational themes that have been critical to our training and exercise program and that will be critical to this attack."

As a former tactics instructor at the U.S. Army Command and General Staff College, Reagan never passed up a chance to teach his team. "First point, gentleman: *knowledge is paramount.* The battalion has to maintain a high level of situational understanding, with frequent updates to the COP during execution. Information superiority is the key to optimizing every other battalion capability. Remember that. Timely situation updates will help the 1st Battalion to avoid surprise and to exploit the quality of firsts—the ability to see first, understand first, act first, and finish decisively. Being first in these areas because of what we know gives us a home-court advantage.

"Second, *freedom of action.* The battalion must retain freedom of action during its attack. We must force the enemy to react to our actions and to the supporting actions of the brigade and the division. We must control the tempo of this engagement, and we must adapt rapidly to changing battlefield conditions, adjusting our plan in-stride, if necessary. The enemy will try to slow us down then tie us down. We must anticipate his actions. Will he use dismounted infantry, obstacles, reconnaissance elements, antiarmor ambushes, and precision-fire strikes? We must avoid, blind, neutralize, or destroy threats from stand-off distances. Higher echelon fires will also help us avoid being bogged down and will support maneuver.

"Third: speed, mobility, and power equals momentum plus protection. Our task forces will capitalize on the speed and mobility of the FCS system of systems to move rapidly on multiple axes, exploiting the inevitable seams between the enemy's strongpoints. As seen many times during training exercises, speed combined with stealth provides inherent protection against enemy fires and often serves to overwhelm and paralyze his forces. Combining speed, mobility, and the power of organic direct and indirect fires will generate the momentum needed for rapid decision and will place the enemy at a disadvantage during final close combat assault against his strongpoint positions."

US paratrooper with Saudi national guardsmen during the early days of Operation Desert Shield, August 1990.

Intelligence from a variety of complementary sources from national- to theater-level satellites; manned aerial reconnaissance; UAVs; in-country SOF; HN sources; all forms of electronic and signals intelligence; and information from nongovernment and private volunteer organizations that remained in country had been integrated to rapidly develop the required knowledge base. Once deployed, the brigade employed its own considerable sensor networks, HUMINT, and air-ground RSTA assets to thicken the brigade COP.

The Tactical Infosphere

The tactical infosphere is the layered, integrated network of information and communications capabilities required to support effective tactical operations, as well as the information it provides. To ensure "decision dominance," tactical commanders need fully networked communications that have access to the global information grid (GIG) that provides real-time situational awareness and targeting information. Furthermore, the networks need connectivity with joint, theater, and national sources, and have reachback assets on the GIG. The tactical infosphere requires wider bandwidth; robust, self-organizing, self-healing communication architecture; and an integrated, distributed, virtual database that is computer intensive, with smart routers and multi-level security protocols.[2]

Reagan and his subordinate leaders had confidence in their current level of situational understand-

ing without, however, assuming that their knowledge was either perfect or complete. The JTF had begun building the infosphere required to support contingency operations even before deployment began. Intelligence from a variety of complementary sources from national- to theater-level satellites; manned aerial reconnaissance; UAVs; in-country SOF; HN sources; all forms of electronic and signals intelligence; and information from nongovernment and private volunteer organizations that remained in country had been integrated to rapidly develop the required knowledge base.

Once deployed, the brigade employed its own considerable sensor networks, HUMINT, and air-ground RSTA assets to thicken the brigade COP. Reagan's scouts and organic UAVs had also been busy, focusing on discriminating between decoy and actual enemy dispositions; locating enemy dismounted infantry, reconnaissance, MANPADS, and antiarmor;

and establishing information exchanges with local police and U.S. SOF. As the commander, Reagan keenly felt the responsibility for managing his organic ISR assets as effectively as possible to ensure no significant gaps in information occurred to stall the attack.

Reagan continued to stress the importance of situational understanding: "Team, take a moment and see if we have any major information shortfalls. S2?"

"Sir, we have been focused on the commander's critical information requirements (CCIR), expecting to go on the offensive. Between our feeds to brigade and higher, our local sources, and employment

> *Reagan [organized] his battalion into four combined arms teams, each maneuvering independently on separate axes to designated unit objectives within OA Alpha, with a single platoon in battalion reserve. Mainly employing secondary and off-road approaches, the four axes could get close enough for the separate columns to provide mutual support while presenting no large lucrative target to invite an enemy fire strike.*

of our own assets, I believe we have reliably identified primary danger areas; movement chokepoints; new and old obstacles; best routes to specific subunit objectives; protected positions for tactical standoff fires; and likely assailable flanks of enemy strongpoints. Daily all-source updates have helped us discern small patterns in the enemy's activities and changes in his dispositions and strengths. We have good visibility on conditions within the three villages, including blocked streets and many hardened fighting positions, with much of the information coming from SOF and HN sources. Our enemy COP also depicts the reconnaissance outposts that we will have to blind or take down. I have to say, however, that there are dismounted elements and some dispersed antiarmor teams in the battalion AO that we have not located. Plus, the enemy has concealed his mortars well. We probably will not locate those assets until he uses them."

"All right, commanders, staff, the S2 just told you what else we need to know." Reagan's battle staff captains were well trained in keeping the COP updated and in adjusting ISR assets to respond to changes in CCIR.

Once the battle began, Reagan intended to push his organic UAVs aloft and seed key areas and routes with remotely delivered sensors, re-seeding as the attack progressed. He also had a string on brigade-controlled Comanche and armed UAV sys-

tems for both reconnaissance and attack of a number of suspected enemy reverse-slope positions and hard-to-strike urban targets. He could also employ the Comanche as an ISR and joint fires integrator against any attempts by the enemy to reinforce his defense or to conduct countermaneuver.

Given this analysis, Reagan decided to organize his battalion into four combined arms teams, each maneuvering independently on separate axes to designated unit objectives within OA Alpha, with a single platoon in battalion reserve. Mainly employing secondary and off-road approaches, the four axes could get close enough for the separate columns to provide mutual support while presenting no large lucrative target to invite an enemy fire strike. Reagan surmised that the multiple axes would also serve to confuse the enemy regarding the battalion's specific objectives and to complicate enemy acquisition and engagement.

With the brigade fires/effects coordination center, Reagan's fires/effects team planned to use a mix of suppression and obscuration fires along each route against covering forces and danger areas to protect and facilitate movement. The automated fire planning system, with its configurable horizontal and vertical linkages, provided real-time visibility on the entire brigade fires/effects system and linked them to joint systems. Scouts and UAVs would precede each task force as additional eyes forward to provide early warning of new threats and to pass new targeting data through direct sensor-shooter linkages to battalion long-range shooters, as well as to the uncommitted 6th Battalion for supporting fires.

"What about obstacles?" Reagan asked.

The S3 quickly answered, "Most of the known obstacles can be bypassed given the superior mobility of the Future Combat System. However, these two minefields [he points them out], which cannot be avoided, will be neutralized from standoff with overpressure or nonlethal munitions. We have balanced organic mobility support across the combined arms team to deal with unforeseen obstacles. We can also call on brigade bridging and breaching assets although those elements are currently allocated in direct support of the 3d and 6th Battalions. Also, we need to remind all elements to scan the bypass routes for new obstacles before using them. Offensively, the division will emplace artillery-delivered minefields, with 8-hour active sensors, to support our maneuver and to canalize the enemy, as shown on the overlay. Plus, we have sufficient NETFIRES remote munitions to put in two temporary nonlethal obstacles—nonlethal because of the urban population in the OA—on call, if we need to."

Reagan had confidence that each combined arms team commander was well versed in the tactics,

techniques, and procedures of combining standoff fires from protected positions en route with rapid closure against assigned final objectives from positions of advantage. In many cases, the fast-moving elements were likely to pass other small, decentralized enemy teams before they could respond effectively. On-board dazzlers and the FCS active-protection system had proven in the past to reduce the threat from LOS antiarmor that they might encounter.

Given the enemy's dispositions in depth, Reagan expected that each team would have to deploy from march formation several times en route to and within the objective area in order to overcome enemy forward elements and outposts. In addition, per Donnelly's direction, Reagan specifically instructed his commanders to engage and destroy any C2 or signal nodes and air defense capabilities discovered en route. Doing so would systematically strip the enemy of his capabilities for battle command and would reduce the surface-to-air threat to air assault and to aerial supply movements in support of the brigade overall. As Reagan completed his order, he stressed that it was key to avoid becoming bogged down or decisively engaged in advance of final objectives.

"Gentlemen, the toughest part of the engagement will be the destruction of the enemy strongpoints anchored in the three villages. Your fighting teams must still be fresh for that part of the fight. Consistent with the brigade order and beginning the movement several hours before dawn, the battalion attack will be synchronized. The task forces should close on unit objectives more or less simultaneously and initiate the close combat battle for the three villages and adjacent complex terrain a couple of hours before night falls.

"Clearing the enemy from his positions in built-up areas is going to be time-consuming and complex. I want each team commander to brief back on how you see your piece unfolding. Where are the seams and entry points to create positional advantage? How are you going to sequence this part of the fight to break down the strongpoints? In particular, review with me how you plan to combine mounted and dismounted modes and how you will employ organic direct and indirect fires for reinforcing and complementary effects.

"Action of networked teams will be centrally important. Their effectiveness will depend largely on how well you maintain responsive linkages with supporting fire systems and make effective use of sensors, robotic scouts, urban micro-UAVs, and soldier knowledge systems. Maximize use of nonlethal engagement systems where you have any doubts about noncombatants; the enemy will try to shield himself with civilians and civilian structures. Make sure platoon leaders are prepared to call for the armed UAVs and Comanches for flanking and rear fires

within the towns and in complex terrain. There will be some delay there, but not much. Finally, driving the enemy outside the city and finishing him there will reduce collateral damage and save civilian lives.

The application of joint fires and resourcesis descending the echelons. If in the past it has been rare to employ joint assets at battalion level, it might [soon] well become more routine. . . . These developments constitute important new challenges. . . . . The quality of leaders of soldiers and the excellence of small units will determine the rise in effectiveness of the Objective Force.

"We are only going to hold the towns for a few hours. Host-nation units will follow up in a stability role, but be sure to avoid friendly-fire mishaps or give any enemy remnants opportunities to hurt us during the hand-off."

Reagan was more than satisfied with his selected COA, which optimized his battalion's strengths. Brigade and higher shaping actions would help set conditions for attack by destroying or neutralizing high-value enemy capabilities and high-payoff targets, particularly elements that comprised his precision-engagement and mobile-strike capabilities—aviation, artillery, target acquisition, and C3 capabilities. Also, supporting fires would fix reserve forces in place; isolate battalion objective areas; strip away enemy reconnaissance and intelligence assets; and protect battalion maneuver. All of the enemy forces that might affect his attack would be effectively suppressed, blinded, or destroyed. Moreover, any effort by the enemy to withdraw from defensive positions to disengage or conduct countermaneuver would expose those forces to observation and withering precision fires.

Undoubtedly, during the engagement, circumstances would force alteration of the attack plan. That was routine and expected. No plan survives contact. Reagan's task force commanders all understood his intent, had the capability to synchronize their activities in stride, and would exercise initiative, according to the principles of mission command, to adjust without orders to new information and changing battlefield conditions.

The Outcome

To describe a decisive rout of the enemy as the end of the story would be too easy and ultimately self-serving. More useful and instructive is to take note of several enduring factors likely to influence the outcome of the battle for OA Alpha.

The enemy has a vote in every battle. A thinking, creative, adaptive enemy has an even larger vote, even when it faces a technologically superior foe. In our scenario, any number of enemy counters might slow or compromise U.S. success: the use by the enemy of nuclear, biological, and chemical capabilities on any scale; the successful degradation of U.S. situational understanding; the exposure of significant numbers of civilians to injury or death; the introduction of technical surprise; or the use of other unanticipated asymmetric responses. In short, although the advanced capabilities envisioned for the Objective Force would certainly introduce significant changes to ground operations, the enemy's own innovation and reactions must be anticipated and accounted for.

The tactical concept described here is highly complex and significantly more complex than existing doctrine. Achieving it would place demands on future leaders and soldiers that substantially exceed today's demands. Clearly, the Army's training and leader development systems must evolve at the same pace as the Objective Force so to produce leaders and units that can—

 Direct organic combined arms capabilities at levels below battalion.

 Operate autonomously and noncontiguously over expanded distances.

 Manage and exploit a much larger flow of information.

 Meet the challenges of urban warfare as a routine operating environment.

 Transition from one engagement to the next without a significant pause.

 Transition smoothly between the four primary forms of operations: offensive, defensive, stability, and support.

The application of joint fires and resources is descending the echelons. If in the past it has been rare to employ joint assets at battalion level, it might well become more routine in the future. Collectively, these developments constitute important new challenges. Ultimately, the quality of leaders of soldiers and the excellence of small units will determine the rise in effectiveness of the Objective Force.

Overemphasizing the significance of information and knowledge to the Objective Force tactical concept would be difficult. Maintaining information superiority and situational understanding shared through a COP and updated by a variety of means during the course of the operation are essential elements of the tactical concept. Superior, reliable, timely, actionable information enhances the effectiveness of all capabilities embedded within the FCS combat battalion and Objective Force combined arms brigade. Rather than guessing about the enemy forces' (and one's own) having knowledge, albeit imperfect, is critical to more efficient use of battle resources and capabilities; to the conduct of precision maneuver; to the ability to conduct simultaneous and subsequent engagements; and of course, to the survivability of the force. Knowledge permits the commander to pursue the most profitable fights, which in turn, will lead to achieving accelerated decision in battle and to dislocating, destroying, and disintegrating the enemy force.

The Army's effort to develop the Objective Force unreservedly highlights the continuing need to close with and destroy enemy forces. Although the definition of close combat is changing to include a broader geographic scope and the continuous combination of LOS and NLOS engagements by mounted and dismounted forces, the future Army must always be prepared for the "short sword" fight in situations where the enemy chooses to stand and fight to the end. *MR*

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Why Great Powers Fight Small Wars Badly

Major Robert M. Cassidy, U.S. Army

I will be damned if I will permit the U.S. Army, its institutions, its doctrine, and its traditions to be destroyed just to win this lousy war.[1]

Organizational structures that encourage the presentation of innovative proposals and their careful reviews make innovation less likely.[2]

Historically, great powers have fought small wars and counter-insurgencies badly. They do not lose them so much as they fail to win them. Cassidy considers historical instances of this phenomenon and concludes that asymmetry in strategy, technology, or national will creates an Achilles heel for great powers.

THESE QUOTES ENGENDER two truisms about the military organizations of great powers: they embrace the big-war paradigm, and because they are large, hierarchical institutions, they generally innovate incrementally. This means that great-power militaries do not innovate well, particularly when the required innovations and adaptations lie outside the scope of conventional war. In other words, great powers do not win small wars because they are great powers: their militaries must maintain a central competence in symmetric warfare to preserve their great-power status vis-à-vis other great powers; and their militaries must be large organizations. These two characteristics combine to create a formidable competence on the plains of Europe or the deserts of Iraq. However, these two traits do not produce institutions and cultures that exhibit a propensity for counterguerrilla warfare.[3]

In addition to a big-war culture, there are some contradictions that derive from the logic that exists when a superior industrial or postindustrial power faces an inferior, semifeudal, semicolonial, or preindustrial adversary. On one hand, the great power intrinsically brings overwhelmingly superior resources and technology to this type of conflict. On the other hand, the seemingly inferior opponent generally exhibits superior

The American Revolution witnessed some of the best unconventional and guerrilla fighting in the history of American warfare. In the Northern Department, irregulars helped bring about the surrender of British Major General Burgoyne's army at Saratoga. . . . In the Southern Department, General Nathanael Greene combined conventional with unconventional tactics to wear down Major General Cornwallis. Greene "developed a capacity to weave together guerrilla operations and those of his regular forces with a skill that makes him not unworthy of comparison with Mao Tse-tung or Vo Nguyen Giap."

will, demonstrated by a willingness to accept higher costs and to persevere against many odds. "Victory or Death" is not simply a statement on a bumper sticker; it is a dilemma that embodies asymmetric conflicts. The qualitatively or quantitatively inferior opponent fights with limited means for a strategic objective—independence. Conversely, the qualitatively or quantitatively superior opponent fights with potentially unlimited means for limited ends—maintaining some peripheral territory or outpost. Seemingly weaker military forces often prevail over those with superior firepower and technology because they are fighting for survival.[4]

History offers many examples of big-power failures in the context of asymmetric conflict: the Romans in the Teutoburg Forest, the British in the American Revolution, the French in the Peninsular War, the French in Indochina and Algeria, the Americans in Vietnam, the Russians in Afghanistan and Chechnya, and the Americans in Somalia. This list is not entirely homogeneous, and it is important to clarify that the American Revolution, the Peninsular War, and the Vietnam war are examples of great powers failing to win against strategies that combined asymmetric approaches with symmetric approaches.

However, two qualifications are necessary when generalizing great powers' failures in small wars. First, big powers do not necessarily lose small wars; they simply fail to win them. In fact, they often win many tactical victories on the battlefield. However, in the absence of a threat to survival, the big powers' failure to quickly and decisively attain their strategic aim causes them to lose domestic support. Second, weaker opponents must be strategically circumspect enough to avoid confronting the great powers symmetrically in conventional wars.

History also recounts many examples wherein big powers achieved crushing victories over small powers when the inferior sides were injudicious enough to fight battles or wars according to the big-power paradigm. The Battle of the Pyramids and the Battle of Omdurman provide the most conspicuous examples of primitive militaries facing advanced militaries symmetrically. The Persian Gulf war is the most recent example of an outmatched military force fighting according to it opponent's preferred paradigm. The same was true for the Italians' victory in Abyssinia, about which Mao Tse-tung observed that defeat is the inevitable result when semifeudal forces fight positional warfare and pitched battles against modernized forces.[5]

Asymmetric conflict is the most probable form of conflict that the United States may face. Four factors support this probability:

 The Western Powers have the world's most advanced militaries in technology and firepower.

 The economic and political homogenization among the Western Powers precludes a war among them.

 Most rational adversaries in the non-Western world should have learned from the Gulf war not to confront the West on its terms.

 As a result, the United States and its European allies will employ their firepower and technology in the less-developed world against ostensibly inferior adversaries employing asymmetric approaches.

Asymmetric conflict will therefore be the norm, not the exception. Even though the war in Afghanistan departs from the model of asymmetric conflict presented in this article, the asymmetric nature of the

A Russian tank sits on a forward-slope firing position overlooking Grozny's urban sprawl, January 2000.

Kommersant

war there only underscores the salience of asymmetric conflicts.[6]

The term "asymmetric conflict" first appeared in a paper as early as 1974, and it has become the strategic term de jour.[7] However, the term "asymmetric" has come to include so many approaches that it has lost its utility and clarity. For example, one article described Japan's World War II direct attack on Pearl Harbor as conventional but its indirect attack against British conventional forces in Singapore as asymmetric. So encompassing a definition diminishes the term's utility. If every type of asymmetry or indirect approach is subsumed within this definition, then what approaches are excluded?

This article circumscribes the scope of asymmetric conflict to analyze conflicts in which either national or multinational superior external military forces confront inferior states or indigenous groups in the latter's territory. Insurgencies and small wars lie within this category, and this article uses both terms interchangeably. Small wars are not big, force-on-force, state-on-state, conventional, orthodox, unambiguous wars in which success is measured by phase lines crossed or hills seized. Small wars are counterinsurgencies and low-intensity conflicts in which ambiguity rules and superior firepower does not necessarily guarantee success.

Asymmetry in Strategy

The guerrilla wins if he does not lose. The conventional army loses if it does not win.[8]

Symmetric wars are total wars wherein there is a zero-sum struggle for survival by both sides—World Wars I and II are the most obvious examples. An asymmetric struggle implies that the war for the indigenous insurgents is total but that it is inherently limited for the great power. This is because the insurgents pose no direct threat to the great power's

In raw numbers, the Russians employed 230 tanks, 454 armored infantry vehicles, and 388 artillery guns. The Chechens, on the other hand, had 50 tanks, 100 armored infantry vehicles, and 60 artillery guns. Despite Russia's superior weapon systems, the Russians were unable to maneuver the Chechens into a disadvantageous position.

survival. Moreover, for the great power in an asymmetric situation, full military mobilization is neither politically prudent nor militarily necessary. The disparity in military capabilities is so great and the confidence that military power will predominate is so acute that the great power expects victory. However, although the inferior side possesses limited means, its aim is nonetheless the expulsion of the great power. The choice for the underdog is literally victory or death.

After the Continental Army unsuccessfully defended New York in 1776 and Brandywine Creek, Philadelphia, in 1777, Washington was compelled to adopt a Fabian strategy. Fabius Maximus was a Roman consul charged with defending Rome against Hannibal. According to B. H. Liddell Hart, Fabius' strategy "was not merely an evasion of battle to gain time, but calculated for its effect on the morale of the enemy."[9] Fabius knew his enemy's military superiority too well to risk a decision in direct battle. Thus, Fabius sought to avoid direct battle against superior Carthaginian-led concentrations and instead protracted the war by "military pin-pricks to wear down the invaders' endurance."[10]

Like Fabius against Hannibal, Washington generally avoided head-on collisions with the British Army. Since Washington's army was limited in personnel, resources, and training, he soon realized that committing his troops to open battle against the British would be disastrous. Washington adopted an indirect strategy of attrition by avoiding general actions against the British main body and concentrating what forces he had against weak enemy outposts and isolated detachments. Washington's plan for victory was to keep the revolution alive by preserving the Continental Army and by exhausting the British will to sustain the fight with raids against peripheral detachments. Washington's political objective was to remove the British from the American colonies, but his military means were so weak that "Washington's hopes had to lie mainly not in military victory but in the possibility that the political opposition in Great Britain might in time force the British Ministry to abandon the conflict."[11]

The American Revolution witnessed some of the best unconventional and guerrilla fighting in the history of American warfare. In the Northern Department, irregulars helped bring about the surrender of British Major General John Burgoyne's army at Saratoga by conducting unconventional hit-and-run attacks on Burgoyne's flanks and lines of communication. In the Southern Department, General Nathanael Greene combined conventional with unconventional tactics to wear down Major General Lord Charles Cornwallis. Greene "developed a capacity to weave together guerrilla operations and those of his regular forces with a skill that makes him not unworthy of comparison with Mao Tse-tung or Vo Nguyen Giap."[12] In part, Greene's strategy stemmed from the shortage of provisions for his regulars and from the presence of partisan bands in the Southern Department.

Asymmetry in Technology

For the Chechens an outright military victory was unlikely, so their goal was to inflict as many casualties as possible on the Russian people and erode their will to fight. The Chechens used an 'asymmetric' strategy that avoided battle in the open against Russian armor, artillery, and air power. They sought to even the fight by fight-

History offers many examples of big-power failures in the context of asymmetric conflict . . . [yet] it is important to clarify that the American Revolution, the Peninsular War, and the Vietnam war are examples of great powers failing to win against strategies that combined asymmetric approaches with symmetric approaches.

A Marine attached to a Combined Action Platoon helps a Vietnamese man with his rice harvest, 26 February 1969.

US Marine Corps

ing an infantry war. Time and again, the Chechens forced their Russian counterparts to meet them on the urban battlefield where a Russian infantryman could die just as easily.[13]

Asymmetry in technology stems from a huge disparity in technological and industrial capacities between adversaries in asymmetric conflicts. The disparity inheres in the structure of any conflict that witnesses a peripheral power facing a core power. Not only does conventional military and technological superiority not ensure victory, it may even undermine victory in an asymmetric context. One need only ask a veteran of the 1995 Battle of Grozny how superior numbers and technology fare against a guileful opponent using an asymmetric approach.[14]

The Russian forces that assaulted Grozny on 31 December 1994 were technologically and quantitatively superior to their Chechen defenders. Perhaps the Russian military's perception of its own invulnerability, stemming from a numerical and technological superiority, contributed to the haphazard manner by which it ambled into a beehive of Chechen antiarmor ambushes. In raw numbers, the Russians employed 230 tanks, 454 armored infantry vehicles, and 388 artillery guns. The Chechens, on the other hand, had 50 tanks, 100 armored infantry vehicles, and 60 artillery guns. Despite Russia's superior weapon systems, the Russians were unable to maneuver the Chechens into a disadvantageous position. Despite former Russian Defense Minister Pavel Grachev's claim that he could topple the Dudayev regime in a couple of hours with one

Army Special Forces initially met with some success using proven counterinsurgency techniques such as aggressive small-unit patrolling, intelligence gathering, and winning hearts and minds. . . . Moreover, the U.S. Marines . . . employed similar techniques with their combined actions platoons, achieving local success for most of the war. . . . General Westmoreland's team tended to marginalize both . . .because [they] were inconsistent with his concept of the U.S. Army's way of war.

parachute regiment, the Chechen forces' skillful resistance in Grozny compelled the Russian forces to fall back from the city's center to re-group. Firing from all sides and from all floors, from city block to city block, Chechen antiarmor teams systematically destroyed a large number of Russian tanks with RPG-7s. In fact, during the New Year's Eve assault, one Russian regiment lost 102 out of 120 vehicles as well as most of its officers.[15]

The 1994-1996 conflict in Chechnya witnessed the massive use of Russian technology and firepower—carpet bombings and massive artillery strikes—the application of which exhibited little concern for civilian casualties or collateral damage. On the other hand, for the rest of the war, the Chechen forces avoided direct battles and isolated Russian forces into smaller detachments that could be ambushed and destroyed piecemeal. For the Russians, unskilled in counterinsurgency techniques and nuances, massed artillery became the substitute for infantry maneuver, and the conventional principle of the offensive "came to be interpreted as the tons of ordnance dropped on target."[16] It seems, then, that instead of adopting the preferred counterinsurgent approach of separating the guerrillas from the people, the Russians in Chechnya tried to destroy the population, guerrillas and all.

The fact that the Russians' technological and numerical superiority did not enable them to achieve their objectives only highlights technology's chimerical nature. One author writes: "Technology offers little decisive

The Soviet army rigidly adhered to a big-war paradigm: "The Soviets invaded Afghanistan using the same military tactics as in the 1968 invasion of Czechoslovakia." What's more, the same officer who commanded the Czechoslovakian invasion, General Ivan Pavlovsky, also commanded the initial incursion into Afghanistan.

Is World Opinion Important?

Edward Bernard Glick

In the war against terrorism, the United States worries too much about international coalitions, just as it does about world public opinion. There is nothing wrong with building a coalition, whether against the al-Qaeda's Osama bin Laden or against Iraq's Saddam Hussein. But before it crafts a coalition, the United States should first inoculate itself against "coalitionitis," a potentially crippling politico-military disease that lets the most diffident members of an alliance diminish American resolve and results.

In the current phase of the antiterrorist war, when all is said and done, Pakistan and Uzbekistan are the only countries in Central Asia that are cooperating with the United States. Great Britain is its only true ally in Europe. And Turkey and Israel—which have more experience fighting terrorism than any other nation on Earth—are its only reliable partners in the Middle East.

As for international public opinion, nothing delights good people more than seeking solutions that are acceptable to it. Yet, nothing is more difficult for them to grasp than the myths and realities of international public opinion. In the heat of an issue, how many people realize that world public opinion is not based on a universally agreed-upon value system, that it is not always objective, that it is difficult to define, that

it is easily manufactured or manipulated, that it is fragmented and ephemeral, that it has a very short memory, and that it can often turn out to be wrong?

Take the matter of definition. How does, or should, one define world public opinion on a given issue? By the level of violence committed in its name? By its loudness? By its repetition? By its media coverage? By the language and number of resolutions the United Nations has adopted on the issue? By the tally of states invoking it on a particular side of an issue? By the total population of those countries?

Or take the fickle and forgetful nature of world public opinion. The Russia that international opinion condemned decades ago for invading Hungary and Czechoslovakia is the same Russia that was hailed for its anti-Israel attitude during those decades. The world public opinion that condemned U.S. intervention in Vietnam is the same public opinion that ignored China when it conquered Tibet. The intellectuals who condemned America's sometime use of nonlethal tear gas during the Vietnam war were the same ones who were silent when Iraq used lethal poison gas during the Iraq-Iran war. In short, world public opinion, to the extent that it exists, is always conditioned by multiple perceptions of democracy,

advantage in guerrilla warfare, urban combat, peace operations, and combat in rugged terrain. The weapon of choice in these conditions remains copious quantities of well-trained infantrymen."[17] Guerrilla war is more a test of national will and endurance than it is a military contest.

Asymmetry of Will

As far back as two millennia, the professional, salaried, pensioned, and career-minded citizen-soldiers of the Roman legions routinely had to fight against warriors eager to die gloriously for tribe or religion. Already then, their superiors were far from indifferent to the casualties of combat, if only because trained troops were very costly and citizen manpower was very scarce.[18]

This quotation highlights a profound disparity that characterizes differences between imperial powers and nonimperial powers. Imperial powers are unable or unwilling to accept high casualties indefinitely in peripheral wars. The weaker side's will is sometimes manifested by a high threshold of pain that enables small powers to succeed against big powers. Samuel B. Griffith II explains: "Guerrilla war is not dependent for success on the efficient operation of complex mechanical devices, highly organized logistical systems, or the accuracy of electronic computers. Its basic element is man, and man is more complex than any of his machines. He is endowed with intelligence, emotion, and *will* (author's italics)."[19]

Since Somalia, the United States' use of force has appeared to be even more restricted by a zero-deaths syndrome. Another manifestation was Kosovo where an air campaign exacerbated the notion of using force without bleeding. Moreover, the U.S. forces that deployed to Kosovo to conduct peace operations had no friendly casualties as their most important criterion for success.

self-determination, wars of national liberation, colonialism, and imperialism.

Clearly, when a democracy such as the United States enters a war, it is obliged to debate, explain, and, if possible, justify its actions. But when Thomas Jefferson admonished his countrymen in the Declaration of Independence to afford "a decent respect to the opinions of mankind," he did not mean that the United States should be blindly obedient to mankind's opinions.

Americans should be particularly wary of European public opinion. Europe's elites, particularly on the left, have always been publicly contemptuous, but privately jealous, of the United States. They have mocked its dynamism, openness, diversity, informality, social mobility, and appeal to the world's masses. Despite the fact that America saved Europe in World Wars I and II, leaving thousands of U.S. soldiers buried in its military graveyards, Europe cannot accept that history has forced it to cede to the New World the Old World's cultural, diplomatic, economic, and military dominance in global affairs. When European intellectuals and their U.S. counterparts proclaim that the people of the world hate America, they forget that Americans are not paying money to have someone smuggle them into other countries. Rather,

citizens of other countries are paying fortunes, sometimes risking life and limb, to be smuggled into the United States.

As for Arab public opinion and Arab emigration into the United States, Fouad Ajami, professor of Middle Eastern studies at the Johns Hopkins University School of Advanced International Studies, has observed that "something is amiss in an Arab world that besieges American embassies for visas and at the same time celebrates America's calamities."

It will not be true forever, but for the present, America is the only great power the dictionary defines as a state powerful enough to influence events throughout the world. That means, in essence, that whether it is fighting nonstate terrorists or trying to prevent rogue states from using weapons of mass destruction, America should do what it must do, even if from time to time it defies the voices of so-called world public opinion.

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An asymmetric struggle implies that the war for the indigenous insurgents is total but that it is inherently limited for the great power. This is because the insurgents pose no direct threat to the great power's survival. Moreover, for the great power in an asymmetric situation, full military mobilization is neither politically prudent nor militarily necessary. The disparity in military capabilities is so great and the confidence that military power will predominate is so acute that the great power expects victory.

All asymmetric conflicts exhibit this same disparity of will. No single phrase better captures this disparity than this question posed in "Gardens of Stone," a movie about the Vietnam war: "How do you *beat* an enemy who is *willing* to fight helicopters with bows and arrows?"[20] In Vietnam, enemy tactics seemed "to be motivated by a desire to impose casualties on Americans regardless of the cost to themselves."[21] According to one RAND analysis of Vietnam, the enemy was "willing to suffer losses at a far greater rate than our own, but he has not accepted these losses as decisive and refuses to sue for peace."[22] In Somalia, the enemy used slingshots against helicopters and used women and children as human shields during firefights.

Asymmetric conflict is not limited to military operations on the battlefield. The weak opponent looks to affect the great power's domestic cohesion, imposing a continual aggregation of costs on its adversaries.[23] From a strategic perspective, the rebels' aim must be to provoke the great power into escalating the conflict. Escalation produces political and economic costs to the external power—soldiers killed and equipment destroyed—but over time, these may be considered to be too high when the great power's security is not directly threatened.

This problem was particularly acute during the Vietnam war when the Clausewitzian-minded U.S. security establishment incorrectly determined that destroying North Vietnam's means of waging war would affect its will to wage war. Even though the United States dropped more than 7 million tons of bombs on Indochina—more than 300 times the impact of the atomic bombs that fell on Japan—North Vietnam's will was resolute, but the United States' will wavered. Lacking the military means to destroy the United States' ability to wage war, Ho Chi Min and General Vo Nguyen Giap correctly focused on U.S. domestic political resolve to continue to support the war. Mao expressed this as "the destruction of the unity of the enemy," but another author explains it even more lucidly: "If the external power's will to continue the struggle is destroyed, then its military capability—no matter how powerful—is totally irrelevant."[24]

Big powers are less tolerant of casualties in small wars than their opponents are. This disparity arose again, this time during the U.S. Army's participation in Somalia: "The enthusiasm of the nation to take an active hand in crafting a new International order through the agency of the UN and multilateral operations, never strong to begin with, died along with 18 of America's soldiers on the streets of Mogadishu."[25] The Army's operations there culminated with the 3-4 October 1993 battle in Mogadishu that left 18 U.S. soldiers killed and 84 wounded, compared to 312 Somalis killed and 814 wounded. The United States' entire involvement in Somalia witnessed at least 30 U.S. troops killed and more than 100 wounded whereas Somali casualties ranged between 1,000 and 3,000. However, 4 days after the ill-fated raid, President William J. Clinton announced the end of U.S. involvement in Somalia, "ostensibly because of the public's adverse reaction to the casualties."[26] Since Somalia, the United States' use of force has appeared to be even more restricted by a zero-deaths syndrome. Another manifestation was Kosovo where an air campaign exacerbated the notion of using force without bleeding. Moreover, the U.S. forces that deployed

Somalia, 1993.

US Army

to Kosovo to conduct peace operations had no friendly casualties as their most important criterion for success.

Embedded Conventionality

Great powers tend to exhibit homogeneity of military thought. Since the Prussian victory in the Franco-Prussian War, big powers have embraced Carl von Clausewitz as the quintessential oracle of war, and they continue to espouse a German-originated theoretical approach to both conventional and mechanized maneuver warfare. However, one can also discern in great powers' military cultures a singularly Jominian trait to separate the political sphere from the military sphere once the war begins. This creates two problems for great powers in asymmetric conflicts: poor or nonexistent politico-military integration and a go-with-what-you-know approach that translates into the preferred paradigm—mid-or high-intensity conventional war. Add to this the tendency of large organizations to change very slowly, and the result is a military that clings to a conventional approach in situations where a conventional approach is not appropriate or effective such as during asymmetric conflicts.[27]

Nowhere was this more manifest than in the Soviet invasion of Afghanistan. The Soviet army that invaded Afghanistan was not trained to conduct counterguerrilla operations but to conduct conventional high-intensity warfare on European plains. Author Scott McIntosh stated: "[Soviet doctrine placed] a premium on mass, echelonment, rapid maneuver, heavy fire support, high rates of advance and coordinated, combined arms actions at all levels."[28] The Soviet army did not have the doctrine or the skill set to fight an unconventional war. There were no

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conventional fronts or rears to penetrate with massed advances of heavy armored forces; instead, the Soviets faced an unorthodox, tenacious, and elusive enemy in difficult, mountainous terrain. The goal of a quick and decisive victory quickly became unrealistic.

The Soviet army rigidly adhered to a big-war paradigm: "The Soviets invaded Afghanistan using the same military tactics as in the 1968 invasion of Czechoslovakia."[29] What's more, the same officer who commanded the Czechoslovakian invasion, General Ivan Pavlovsky, also commanded the initial incursion into Afghanistan. The Soviet army conducted large-scale armor warfare up until 1982. About twice a year, the Soviets conducted huge conventional offensives, using motorized rifle divisions trained for battle against NATO in central Europe rather than using their lighter and better-suited airborne units. The excessive force and indiscriminate destruction that this approach entailed, however, did not win hearts and minds. The Soviets' scorched-earth approach of the mid-1980s stiffened rebel resistance.

Vietnam was also essentially a counterguerrilla war until the United States tried to transform it into something it was not by "Americanizing" it. In fact, in 1961 and 1962, U.S. Army Special Forces initially met with some success using proven counterinsurgency techniques such as aggressive small-unit patrolling, intelligence gathering, and winning hearts and minds. By the end of 1962, the Special Forces had recovered and secured several hundred villages from the Vietcong. Moreover, the U.S. Marines operating in the I Corps area employed similar techniques with their combined actions platoons, achieving local success for most of the war. However, General William C. Westmoreland's team tended to marginalize both the Special Forces' efforts and the Marines' combined actions platoon program because both were inconsistent with his concept of the U.S. Army's way of war: conventional, lots of firepower, and harnessing technology to search and destroy.

It has been argued that the U.S. Army never seriously attempted counterinsurgency in Vietnam. Its lack of flexibility was summed up in the remark at the beginning of this article: "I will be damned if I will permit the U.S. Army, its institutions, its doctrine, and its traditions to be destroyed just to win this lousy war."[30] The American victory over the Germans and Japanese during World War II "had been so absolute, so brilliantly American, that the notion of losing a war was unthinkable."[31] The solution for that war's victory, "superior firepower, superior manpower, superior technology," became the formula for victory for the rest of the century and encouraged commanding generals in Vietnam "willfully to underestimate their enemies and over-estimate their own battlefield prowess."[32] The U.S. Army was unable to adapt to the kind of war the North Vietnamese and Vietcong conducted. "By its more conventional response, its strategy of attrition and the unceasing quest for the big set-piece battle, the Army became, in effect, a large French Expeditionary Corps—and met the same frustrations."[33] The U.S. Army placed marginal emphasis on unconventional warfare doctrine. With scant interest or recent practice in counterinsurgency on a large scale—and few recognizable payoffs in career promotions or annual budget allocations—the evolving U.S. Army strategy was predictable. "The Army was going to use a sledgehammer to crush a fly, while the practice of
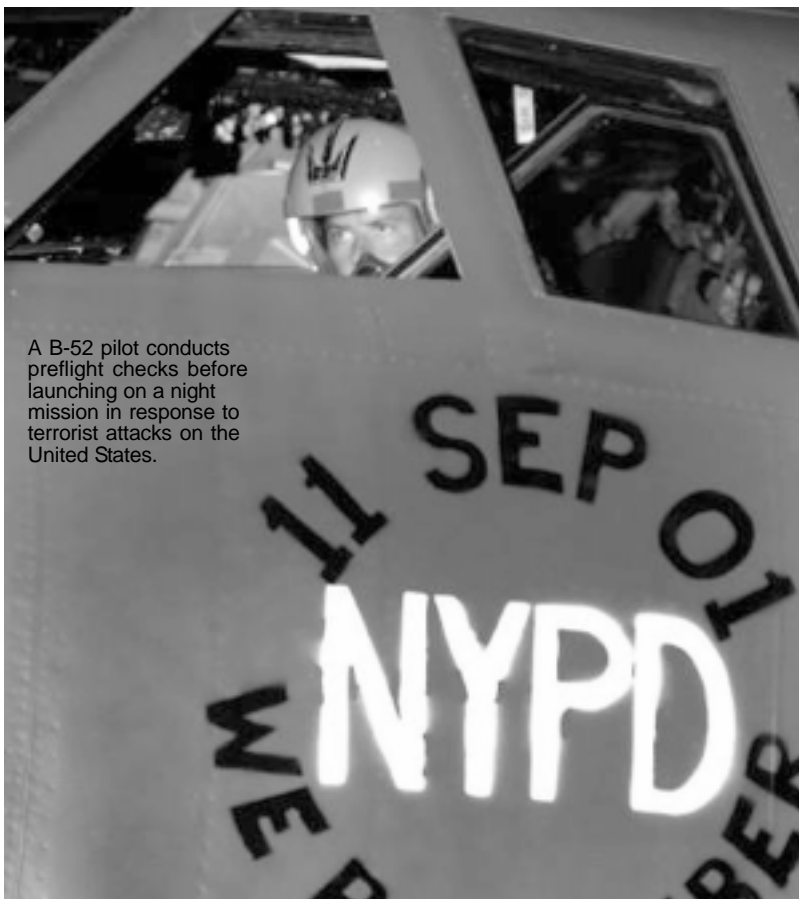
A B-52 pilot conducts preflight checks before launching on a night mission in response to terrorist attacks on the United States.

US Air Force

Combining precision bombing and employing Special Forces in an unconventional warfare role, the U.S. military essentially decapitated the oppressive Taliban rule there. However, the U.S. war in Afghanistan is different from the examples discussed here in one significant way. In the war against terrorism, U.S. military forces are defending the United States' vital interests. In this respect, this war has more in common with World War II than it does with Vietnam or Somalia. It is a war as a crusade against a nonstate actor that attacked and continues to threaten the U.S. homeland.

unconventional war was left largely to the Special Forces."[34]

The good news is that after more than a decade of doing things other than war, U.S. military culture is changing—it is becoming more disposed to operations outside its historical paradigm. This is manifest, in particular, by the fact that the Army's core leaders are reflecting and effecting changed attitudes toward peace operations. In a U.S. Institute of Peace (USIP) report that interviewed a group of general officers, General Eric K. Shinseki observed that he had to face a cultural bias in Bosnia because "Army doctrine-based training prepared him for war fighting at all levels, but there wasn't a clear doctrine for stability operations."[35] However, as the current Chief of Staff, U.S. Army, Shinseki is driving change in the Army's mind-set and force structure to make it more strategically relevant. The USIP report also concluded that peace operations are "the new paradigm of conflict that will confront the army in future deployments as more failed states emerge and peace enforcement and nation-building become staples of the senior military leadership diet."[36] In another study, the former Implementation Force chief of staff expressed the need to "build a military capable of many things— not just the high end."[37]

In October 2001, the U.S. military prosecuted an effective and unprecedented strategy against the Taliban regime and al-Qaeda in Afghanistan. Combining precision bombing and employing Special Forces in an unconventional warfare role, the U.S. military essentially decapitated the oppressive Taliban rule there. However, the U.S. war in

Afghanistan is different from the examples discussed here in one significant way. In the war against terrorism, U.S. military forces are defending the United States' vital interests. In this respect, this war has more in common with World War II than it does with Vietnam or Somalia. It is a war as a crusade against a nonstate actor that attacked and continues to threaten the U.S. homeland.

Both the United States and al-Qaeda appear to be fighting to achieve unlimited ends: the United States is trying to eradicate the al-Qaeda terror network around the globe, and the enemy wants to get the United States out of the Middle East and East Asia. In this case, the U.S. public will probably continue to tolerate casualties and to support a protracted counterterror war because it is clear that this effort is defending U.S. vital interests. For the same reason, U.S. political leaders agree and have resolved to successfully conclude this war.

The war in Afghanistan is distinct in another important way. The first, and most successful, campaign there was U.S. special operations troops operating in a proinsurgent role—the U.S. military initially was the guerrilla. Being the guerrilla and countering the guerrilla are two very different things. Since the beginning of 2002, however, the U.S. military has conducted counterguerrilla operations in eastern Afghanistan. Although the final outcome is yet to be determined, an approach that combines intelligence, small special-unit actions, and precision bombing has been successful inside Afghanistan.

However, the potential for safe haven for the Taliban and al-Qaeda fighters along the porous and sparsely guarded 1,300-mile Pakistani border seems to have been realized since Pakistani national police sources estimate that as many as 10,000 Taliban cadres and 5,000 al-Qaeda fighters are hiding in sanctuaries inside Pakistan. This situation presents a vexing conundrum: whose forces can and will search out the 15,000 enemy soldiers who are being harbored inside a friendly state by and among the 1 percent of the population who are Islamic extremists and the 15 percent of the population who are anti-American?[38] If it is at all possible that U.S. forces may enter Pakistan to help that government isolate and eradicate these 10 to 15,000 jihadist guerrillas, there are some lessons from another war in Asia more than a quarter of a century ago that can help show the United States what not to do.

Of all the services, the U.S. Marine Corps seems to be the best incubator for serious thought about small wars. The Marines sponsored two works on small wars that are worthy of dusting off as the U.S. military continues its global fight against al-Qaeda guerrillas. The first is a U.S. Marine Corps primer that was published in 1962, *The Guerrilla—and How to Fight Him*, and the second is the 1940 U.S. Marine Corps *Small Wars Manual*.[39] The latter offers timeless guidelines and techniques for conducting counterguerrilla operations: "In small wars, caution must be exercised, and instead of striving to generate the maximum power with the forces available, the goal is to gain decisive results with the least application of force. In small wars, tolerance, sympathy, and kindness should be the keynote of our relationship with the mass of the population. Small wars involve a wide range of activities including diplomacy, contacts with the civil population and warfare of the most difficult kind."[40] **MR**

NOTES

1. This quote, attributed to an anonymous U.S. Army general, is from Brian M. Jenkins, *The Unchangeable War*, RM-6278-ARPA (Santa Monica, CA: RAND, 1970), 3.

2. Harvey M. Sapolsky, "On the Theory of Military Innovation," *Breakthroughs* (Spring 2000), 35 and 38.

3. To win or to be effective in the context of counterinsurgency or low-intensity conflict (LIC) is subjective and relative. However, although diverse missions comprise the realm of LIC/operations other than war, a general corpus of principles has emerged from a legacy of experiences in operations short of war. To be effective, doctrine in this area should help promote two central aims: to integrate military, political, economic, and social objectives, moving them toward the desired strategic outcome and to gain and maintain support of the indigenous population.

4. Based on Andrew Mack, "Why Big Powers Lose Small Wars: the Politics of Asymmetric Conflict," *Power, Strategy, and Security: a World Politics Reader*, Klaus Knorr, ed. (Princeton, NJ: Princeton University Press, 1983), 126-51. This implies a qualitative and quantitative superiority by empirical conventional measures of military capabilities only.

5. These battles witnessed European armies handily and brutally defeating their non-European adversaries because the latter chose, imprudently, to fight the former symmetrically. See Winston S. Churchill, *The River War* (London: Prion, 1997), 191-225 and Daniel P. Bolger, "The Ghosts of Omdurman," *Parameters* (Autumn 1991), 34, for an analysis of the Battle of Omdurman. Mao Tse-tung, *On Protracted Warfare* (Peking: Foreign Language Press, 1967), 9-10.

6. Once again, inferior connotes a weakness in conventional measures of military might, not necessarily in strategy, tactics, and warrior skills. Asymmetric conflict was also the norm during the Cold War and throughout U.S. history. During the Cold War, the threat of nuclear escalation precluded a symmetric conflict between the two superpowers.

7. The term "asymmetric conflict" first appeared in Andrew Mack, "The Concept of Power and Its Uses in Explaining Asymmetric Conflict" (London: Richardson Institute for Conflict and Peace Research, 1974).

8. Henry Kissinger, "The Vietnam Negotiations," *Foreign Affairs* (January 1969), 214.

9. B.H. Liddell Hart, *Strategy*, 2d ed. (New York: Praeger, 1967), 26. Fabian connotes an indirect strategic use of force and stems from Roman General Quintus Fabius Maximus who protracted the war against Hannibal in the Second Punic War by avoiding decisive battles.

10. Ibid., 27.

11. Russell F. Weigley, "American Strategy From its Beginnings Through the First World War," *Makers of Modern Strategy*, Peter Paret, ed. (Princeton, NJ: Princeton University Press, 1986), 410-12; Russell F. Weigley, *The American Way of War* (IN: Indiana University Press, 1 September 1977) 5, 15, and 18-19. See Mack, "Why Big Powers Lose Small Wars," 145-46.

12. Ibid., 410-11 and Ibid., 18, 23-24, 26, and 29.

13. Sean J.A. Edwards, *Mars Unmasked: the Changing Face of Urban Operations* (Santa Monica, CA: RAND, 2000), 28.

14. Mack, "Why Big Powers Lose Small Wars," 128 and 133.

15. Timothy Thomas, "The Caucasus Conflict and Russian Security: The Russian Armed Forces Confront Chechnya," Part III (Fort Leavenworth, KS: Foreign Military Studies Office [FMSO], 1997), 6; Raymond Finch, "Why the Russian Military Failed in Chechnya" (Fort Leavenworth, KS: FMSO, 1997), 4-7; and Gregory J. Celestan, "Wounded Bear: The Ongoing Russian Military Operation in Chechnya" (Fort Leavenworth, KS: FMSO, 1996), 4.

16. Finch, 5-6 and Celestan, 5. Wiping out the noncombatant population is not the preferred solution in counterinsurgency. To counter Mao's approach in which the people in a guerrilla war are "likened to water" and the guerrillas are likened "to the fish who inhabit it," most counterinsurgency experts would assert the necessity of separating the fish from the water by winning the hearts and minds of the population. For Mao's fish and water simile, see Mao Tse-Tung, *On Guerrilla Warfare*, Samuel B. Griffith II, trans. (Champaign, IL: University of Illinois Press, 2000), 93.

17. Lester W. Grau, "Bashing the Laser Range Finder With a Rock" (Fort Leavenworth, KS: FMSO, 1997), 4.

18. Edward N. Luttwak, "Toward Post-Heroic Warfare," *Foreign Affairs* (May/June 1995), 116.

19. Samuel B. Griffith II, "Introduction" in Mao Tse-Tung, *On Guerrilla Warfare*, 7.

20. Francis Ford Coppola, "Gardens of Stone," produced by Columbia TriStar Home Video, 111 minutes, 1987, videocassette.

21. Jenkins, 3.

22. Ibid., 4.

23. Mack, "Why Big Powers Lose Small Wars," 128, 130, and 132-33.

24. Ibid., 129-30 and Mao Tse-Tung, *On Guerrilla Warfare*, 90. For tons of bombs dropped on Vietnam, see John G. Stoessinger, *Why Nations Go to War*, 5th ed. (New York: St Martin's Press, 1990), 111-12.

25. Anonymous U.S. senator cited in Edward Foster, *NATO's Military in the Age of Crisis Management* (London: Royal United Services Institute for Defence Studies, 1995), 13.

26. For casualty figures, see Susan Rosegrant and Michael D. Watkins, *A Seamless Transition: United States and United Nations Operations in Somalia 1992-1993 (B)* (Cambridge, MA: Harvard University, 1996), 12-16 and Rick Atkinson, "Night of a Thousand Casualties," *Washington Post*, 31 January 1994, A01. Don M. Snider, John A. Nagl, and Tony Pfaff, *Army Professionalism, the Military Ethic, and Officers in the 21st Century* (Carlisle, PA: Strategic Studies Institute, 1999), 23. This is not necessarily true in Afghanistan, however, where the American public and political elite seem to be more tolerant toward casualties because the war is a crusade against an unambiguous, direct threat to U.S. security.

27. For a discussion of the professionalization and homogenization of Western militaries, see Samuel P. Huntington, *The Soldier and the State: The Theory and Politics of Civil-Military Relations* (Cambridge, MA: Belknap Press, 1957), 46-65. Some would argue that A.A. Svechin and V.K. Triandafillov are the true-faith apostles of operational art and maneuver warfare. However, two Germans, Sigismund von Schlichting and Helmuth von Moltke, the elder, were among the first military thinkers to recognize the shift away from the Napoleonic (Clausewitzian) paradigm that the American Civil War had signaled. See James J. Schneider, *The Structure of Strategic Revolution* (Novato, CA: Presidio Press, 1994), 168-77.

28. Scott E. McIntosh, "Leading With the Chin: Using Svechin to Analyze the Soviet Incursion Into Afghanistan, 1979-1989," *The Journal of Slavic Military Studies* (June 1995), 420.

29. Olivier Roy, *The Lessons of the Soviet/Afghan War*, Adelphi Paper 259 (London: International Institute for Strategic Studies, 1991), 16 and 18. It is hard to miss the similarity and the concomitant irony between the name Pavlovsky and Pavlov. In some manner, the Soviet army in Afghanistan acted like Pavlov's dogs, exhibiting a conditioned response, however inappropriate.

30. Jenkins.

31. Ibid.

32. Ibid. and Rick Atkinson, *The Long Gray Line* (Boston, MA: Houghton Mifflin Co., 1989), 82.

33. Peter M. Dunn, "The American Army: The Vietnam War, 1965-1973," *Armed Forces and Modern Counter-Insurgency*, Ian F.W. Beckett and John Pimlot, eds. (New York: St. Martin's Press, Inc., 1985), 84.

34. Ibid., 85.

35. General Eric K. Shinseki, Interview, 14 January 1999, in Howard Olsen and John Davis, "Training U.S. Army Officers for Peace Operations," *Special Report* (Washington, DC: U.S. Institute of Peace, 1999), 2.

36. Ibid., 3.

37. Edith B. Wilkie and Beth C. DeGrasse, *A Force for Peace: U.S. Commanders' Views of the Military's Role in Peace Operations* (Washington, DC: Peace Through Law Education Fund, 1999), 40.

38. Arnaud de Borchgrave, "Al Qaeda's Privileged Sanctuary," *Washington Times*, 20 June 2002, 19.

39. Krepinevich, 70-71 and 172-77, and *The Guerrilla—And How to Fight Him*, T.N. Greene, ed. (New York: Praeger Publishers, 1962).

40. U.S. Marine Corps, *Small Wars Manual* (Washington, DC: U.S. Government Printing Office, 1940), 31-32.

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The term "asymmetric" has come to include so many approaches that it has lost its utility and clarity. For example, one article described Japan's World War II direct attack on Pearl Harbor as conventional but its indirect attack against British conventional forces in Singapore as asymmetric. So encompassing a definition diminishes the term's utility.

Command and Control

Command and control has come a long way since semaphore flags and signal lamps. Today, information technology plays a huge role in how commanders exercise command and control. Considering the macro level of command and control, Robert M. Murphy and Kathleen M. Murphy argue that a national management information system is needed to provide national decisionmakers information about the commitment of resources at the theater level. At the micro level of command and control, Jack Burkett argues for a reconsideration of command post functions and new, technologically leveraged designs.

Managing Theater Engagement Planning

Robert M. Murphy and Kathleen M. Murphy

DURING THE 1998 Quadrennial Defense Review, then Deputy Secretary of Defense John J. Hamre stated to the House National Security Committee that to meet challenges of an uncertain future, new operational concepts and organizations are needed to fully exploit new technologies as well as a "hedge against threats that are unlikely but which would have disproportionate security implications."[1] Hamre called for a transformation in military information management practices that would draw from the best business information management practices arising from the ongoing revolution in business affairs. The goal, of course, was to gain more efficiency in the use of national resources to increase the country's military capability without sacrificing combat readiness. This struggle between the efficient use of resources and the need to accomplish organizational goals is a challenge for all organizations. That struggle within the Department of Defense (DOD) is the focus of this article. To this end, the article will detail some of the problems inherent in developing a management information system (MIS) designed to satisfy all levels of decisionmakers in our government.

DOD needs to reestablish a national-level MIS to collect, analyze, sort, and manage information about the resources used in theater security cooperation (TSC) so that the nation uses its limited resources most efficiently. Although micromanagement might ensue, this practice accords with the current best business practices. Gathering pertinent, reliable data and usable information allows key DOD

Editor's note: When the authors researched material for this article, the terms 'theater engagement planning (TEP)' and 'theater engagement planning management information system (TEPMIS)' were in use. The terms are now 'theater security cooperation (TSC)' and 'theater security cooperation management information system (TSCMIS),' respectively. The new terms have been used throughout the article.

Before computers, typed, handwritten, or oral reports met managers' information and decision-support needs. In colonial India, British administrators relied on an MIS composed of runners carrying and delivering reports. Today, computers gather, organize, and share data; however, the volume of information is such that managers cannot process all the information presented at a given time

managers at the national level to make timely and informed resource decisions.

The authors gathered information for this article by visiting all the staffs of the geographical unified commands from December 2001 to March 2002. During these visits, they interviewed senior military staff officers such as the Director of Logistics and Security Assistance, J4; the Director of Strategy, Policy, and Plans, J5; as well as one political adviser (POLAD) and one deputy POLAD. They also spent many hours interviewing many security assistance officers and country desk officers of these same staffs.

Management Information Systems

MIS have been around as long as the concept of management itself. Their central purpose is to help managers gather and organize data in a format that allows them to make quality decisions in a timely manner. Before computers, typed, handwritten, or oral reports met managers' information and decision-support needs. In colonial India, British administrators relied on an MIS composed of runners carrying and delivering reports. Today, computers gather, organize, and share data; however, the volume of information is such that managers cannot process all the information presented at a given time.[2]

One of the fundamental challenges of developing an MIS that meets the organization's needs is the tension between an organization's information system managers and its operations managers. In a classic article on this problem, it was noted that "On the one hand, top management—particularly in large

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Since the combatant commanders did not get additional resources from DOD for feeding this centralized TSCMIS process, they preferred to track their respective cooperation activities independently. After all, they had to rely on their own resources to support these activities. Unfortunately, the absence of a centralized TSCMIS created an information gap at the national level as to the use of resources.

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companies—is increasingly seeking more sophisticated uses of computer technology. But, on the other, the MIS manager, the gatekeeper to the computer, is frequently excluded from the corporate planning process…. His input is solicited after key decisions have been made—if at all. Such exclusion can lead to faulty decisionmaking, at least when information systems are involved."[3]

Theater Security Cooperation

To implement the President's National Security Strategy of 1997, DOD either responds to crises or shapes conditions. To respond to crises, DOD uses the Joint Strategic Capabilities Plan (JSCP). The JSCP provides guidance to combatant commanders to accomplish tasks and missions based on current military capabilities. It apportions resources to combatant commanders based on military capabilities resulting from complete program and budget actions and intelligence. The various JSCP reporting formats that provide senior leaders a readiness picture are well established and constitute an MIS.

To address the shaping task, each geographic combatant commander develops a TSC plan that identifies shaping activities drawn from the National Security Strategy of 1997. DOD advises combatant commanders to keep combatant command missions separate from services' Title X responsibilities. To deconflict these missions, the geographic combatant commanders and executive agents (EAs) analyze, prioritize, and incorporate into the TSC process relevant TSC data from supporting combatant commanders, the services, and defense agencies.[4]

The shaping strategy presents a complicated challenge. Forces provide substantial levels of peacetime cooperation that draw on the full range of shaping instruments. These include stationing forces abroad permanently; deploying forces abroad either rotationally or temporarily for exercises; conducting combined training; initiating military-to-military interactions; and participating in programs such as defense cooperation, security assistance, International Military Education and Training (IMET), and international arms cooperation. Furthermore, forces must be able to sustain such cooperation within acceptable personnel tempo levels.[5]

A combatant commander is not the only one to identify cooperation objectives and develop cooperation plans for his theater; many other government agencies, such as sister services, the Security Assistance Office, the Department of State, the Joint Chiefs of Staff, and host nations do so as well. All these actors pursue various cooperation activities; some conflict, and some coincide. As a result of competing cooperation interests and objectives, suboptimizing resources is always a danger. Peter Drucker notes that "the challenges for organizational decision makers in the 21st century will be similar to an orchestra leader, that is, making good music from a collage of experts trying to demonstrate their own brilliance."[6] To counter this threat of suboptimization, the search to find a common ground by which to achieve strategic unanimity is difficult at best.

Gathering timely information at the national level on the multitudinous shaping events in any given theater is essential to using limited resources wisely. In addition, such information will portray not only current activities but also will help identify future trends. When trying to determine which shaping activities the United States should pursue and to what extent, the need for an MIS becomes obvious. The Theater Security Cooperation Management Information System (TSCMIS) seeks to track cooperation activities that best serve national objectives as articulated by the National Security Council, the Office of the Secretary of Defense, and the Department of State.

Theater Security Cooperation Management Information Systems

The Defense Planning Guidance, Fiscal Years 2002-2007, dated 6 April 2000, required DOD to develop a process to integrate military cooperation activities conducted around the globe.[7] Consequently, DOD established, and the Director of Strategy, Policy, and Plans, J5, managed, a centralized

TSCMIS to assess the progress of the myriad co-operation activities that combatant commanders were conducting in their respective areas of responsibility (AORs); however, it was later eliminated for two reasons. The first was that the time and effort expended on TSCMIS reports were disproportionate to the benefits received. The second was that TSCMIS was not tied to the Planning, Programming, and Budgeting System, the resource allocation system. The combatant commanders had little incentive to prepare reports for TSCMIS because the combatant commanders did not receive an increase in resources when they did. Since the combatant commanders did not get additional resources from DOD for feeding this centralized TSCMIS process, they preferred to track their respective cooperation activities independently. After all, they had to rely on their own resources to support these activities. Unfortunately, the absence of a centralized TSCMIS created an information gap at the national level as to the use of resources.

Although DOD's centralized TSCMIS program has been eliminated, all unified commands still operate a regional TSCMIS to track their cooperation activities. These MIS might not be called TSCMIS; they might not even be following a standard TSCMIS template. Even so, they keep the unified commands informed about the status of the shaping activities in their respective AORs. As responsible commanders and good stewards of national resources, combatant commanders faithfully track these events.

As combatant commanders execute their plans to provide security and stability to their regions, gathering data that leads to useful information becomes critical. Such information is crucial in determining which actions provide the best return on a combatant commander's use of his own, and ultimately national, resources.

To enable combatant commanders to manage their own TSC plans more successfully, a system is required that ensures their warfighting capabilities are not degraded. Therefore, regardless of what each combatant commander may call his MIS, it must maintain the appropriate visibility of critical information, thereby permitting combatant commanders time to make sound resource decisions. Such decisions will prevent the weakening of U.S. warfighting capabilities and enhance the United States' national interest in an AOR. The challenge becomes how best to thread all the information garnered from these everyday military activities to create a continuous information flow.

The need for a reporting system where decision-makers at all echelons of the government have the necessary information to make appropriate decisions

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becomes obvious. Although the absence of centralized TSCMIS reporting reduces the administrative burden on combatant commanders' staffs, the cost is a lack of global coordination among cooperation activities. Furthermore, the lack of a centralized system places pressure on DOD, Department of State, and congressional information systems to supply the required information when determining the best use of national resources. In essence, this process looks suspiciously similar to what businesspeople do on an everyday basis—coordinating operational decisions that affect the organization's strategic direction.

Sorting Out TSC Priorities

Now that combatant commanders bear the full burden of developing a TSC tracking system, the complexity of managing all the associated tasks is overwhelming. That is, even after activity managers identify adequate resources, coordinating these activities with more than 30 activities becomes a daunting task. Therefore, a combatant commander's TSCMIS must provide adequate visibility over these actions in an effort to implement both the combatant commander's and the respective ambassador's objectives. Hopefully, such actions will provide stability to a region, thereby promoting the national interest of both the United States as well as the affected nation.

To assess cooperation activities, combatant commanders have instituted a process called the regional working group (RWG). These RWGs are designed to bring together the various agencies within the combatant commander's AOR. These organizations, in turn, help them list and prioritize cooperation activities. According to the U.S. European Command (USEUCOM), RWGs are designed to—

☐ Provide critical feedback that assesses past shaping efforts and aids in the design of future efforts.

> *Even after activity managers identify adequate resources, coordinating these activities with more than 30 activities becomes a daunting task. Therefore, a combatant commander's TSCMIS must provide adequate visibility over these actions in an effort to implement both the combatant commander's and the respective ambassador's objectives.*

☐ Prioritize regions and countries within the AOR and any subsequent shaping activities.

☐ Apportion shaping activities based on a collaborative effort.

☐ Develop shaping guidance that optimizes the use of combatant commanders' resources.[8]

RWGs have the potential to ease significantly the difficulties of coordinating cooperation activities. Not only do senior-level decisionmakers need systems to harvest raw data, but they also need people who can convert raw data into usable information. Such personnel can initiate meaningful dialogue on core issues that lead to the best possible cooperation options. TSCMIS is critical to gathering reliable information to help senior leaders make the best possible cooperation decisions.

The Problems of Instituting an MIS

Developing a DOD-wide TSCMIS is a rational course of action by which to gain visibility of DOD cooperation activities; however, it does pose many challenges. These issues include connectivity between users and coordinating agencies, system administration, software configuration, and security accreditation and certification. Also, there is the threat of micromanagement: the more information an organization gathers, the more senior leaders make decisions at lower organizational levels.

The most challenging aspect of instituting a DOD-wide TSCMIS is ensuring that the MIS suits the respective organizational level. Establishing a common base for TSCMIS, with global connectivity, implies that combatant commanders' cooperation activities are sufficiently similar, to the degree the activities can be placed in general categories and compiled in a roll-up of such activities. The problem with this procedure is that similar cooperation activities in various combatant commanders' AORs do not always provide similar results. Caution is required to ensure that a linear cause and effect correlation is not assumed by inexperienced individuals interpreting the raw data and/or drawing unfounded inferences from subsequent information.

This leads to the second challenge of instituting TSCMIS—the struggle to keep well-trained country desk and security assistance officers on board. This issue was identified during visits with combatant commanders' staffs between September 1999 and February 2001. During the interview sessions, it was noted that some of the country desk officers have been associated with their respective countries for many years as a foreign area officer or through personal experiences.

Two challenges arise from this situation. The first is the need to ensure that country desk officers are properly trained to understand the input needs to TSCMIS. Of course, with increased computer literacy, this becomes a minor impediment. However, in the process of translating raw data to usable information, if the TSCMIS does not meet the common-sense standard of country desk officers and their supervisors, a double reporting system may be created; that is, a system to meet the demands of TSCMIS reporting and a local system.

The second challenge, and perhaps the more difficult one, is the experience needed by desks officers and unified command staffers that will permit them to make recommendations based on the merits of a particular cooperation course of action. With the turbulence noted previously within combatant commanders' staffs, maintaining an experienced staff can be a challenge. Unfortunately, the data placed into a well-designed TSCMIS program may not be the data needed to develop usable information by the decisionmakers. If the TSCMIS is to be a valuable tool for decisionmakers, care must be taken to ensure that not only is the design both valid and reliable but also that subjective evaluations are as valid as is humanly possible.

Final Thoughts

Where does this leave us in regard to the charge to meet challenges of an uncertain future with new operational concepts coupled with the exploitation of new technologies? Perhaps, the answer lies in a total systems approach to the cooperation situation. First, regardless of what the current administration's strategy is on cooperation activities, the United States can ill afford to assume an isolation mentality, especially in light of the terrorist events on 11 September 2001. Influencing external forces to benefit one's organization is a natural phenomenon that will continue.

Second, senior decisionmakers at all levels will always want to influence the direction of their respective organization and the use of its resources. Find-

ing ways to maintain the pulse of an organization is both natural and necessary for those in authority.

Third, tension will always exist between the freedom that commanders want in order to execute their missions and the pitfall of optimizing their operation at the expense of the organization. The possibility of suboptimization exists. Nevertheless, a balance between the parts and its whole must be achieved. DOD and the U.S. Government are no exceptions to this organizational struggle.

Fourth, serious attention needs to be given to the career patterns of country desk officers for all the services if the system is to have a reliable source of frontline personnel capable of providing valid and reliable input to TSCMIS. The experience factor is key to understanding the cultural context of all our global relationships.

Finally, TSCMIS and systems like it will not go away. In a recent issue of *Inside the Army*, Dr. David S.C. Chu, Undersecretary of Defense for Personnel and Readiness, stated that readiness reporting needs to change to reflect "the rich menu of things a unit might actually do and not just fixate on one element of the spectrum of missions that the Army is asked to do today."[9] He continued by saying that an elaborate system that requires one to fill out forms is probably not a good idea. The real need is to explore the extent to which normal transaction records can be used to determine readiness. "Given modern computing power, can we use these records to give us what a business would have, which is an instantaneous view of what is happening in the field? It builds on what you are already doing at the operating level and it has the further advantage in that, if something

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is occurring that you think is an anomaly, you can drill down quickly and find what is going on."[10] Sounds suspiciously like a centrally controlled TSCMIS.

The basic theme for this article was to address the attempt by a government agency to streamline its information-gathering efforts to enhance its decisionmaking. Individuals in authority in any organization attempt to make informed decisions. Yet, as an organization increases in complexity and size, its capability to capture relevant data and develop pertinent information for decisionmakers is continually challenged.

Using the best business practices seems like a natural step for government agencies; however, like so many promising solutions for any organization, there is more involved than simply implementing a better business practice. Government agencies, like all organizations, continue to evolve. Yet, innovative practices usually will not mend broken or outdated organizational structures or outmoded ways of doing business. A healthy organization is the result of good management and leadership practices that are imbedded in sound, holistic critical thinking. **MR**

NOTES

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Radical C^2 Doctrine and CP Design

Lieutenant Colonel Jack Burkett, U.S. Army, Retired

*The instruments of battle are valuable
only if one knows how to use them.*
— Ardant DuPicq

HE DIVISION COMMANDER's command
and control (C2) vehicle moves swiftly across
the division's battlespace, just behind the digitized
division's right flank brigade. He patches his cav-
alry squadron commander's optical scanner and the
unmanned aerial vehicle video into his processing unit
to monitor the division's flank. Moments later, his
division's combat vehicles roll past the burned-out
hulks of enemy armored vehicles scanning for signs
of movement. Suddenly, the flank brigades' vehicles
swerve hard left to avoid enemy artillery. They re-
ceived an alert warning and flash command from
the division commander through their on-board com-
puter decision support processors. All players in this
division know precisely where every battlefield ele-
ment is. No more guessing, no lack of information,
no mistaken identity; just positive control. Welcome
to the world of the commander of a Force XXI unit.

Will the design and processes being developed for
the future command post (CP) support a scenario
such as this one? If there is any doubt at all that it
will be able to, the U.S. Army must reexamine its
CP design processes and make some significant
course adjustments. Ultimately, the CP's primary role
is to help the commander maintain situational aware-
ness. Too much information can be more detrimen-
tal to effective battlefield decisionmaking than too
little, as it consumes valuable time to analyze data
and convert it to timely, meaningful situational aware-
ness during the battle. Emerging technology and
function-based processes are the cornerstones for
developing future CPs. The Army still needs the hu-
man interface, but quantum improvements in digiti-
zation, space-based technology, airborne platforms,
and rapidly processed data allow commanders to
decide, detect, and deliver much faster than ever
before on the battlefield.

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required to realize significant increases in
performance while improving efficiency and
survivability. Both examples display that failing
to perform a job correctly can result in cata-
strophic consequences. Force XXI CP design
requires new thought paradigms. Designers
must adopt a radical "out-of-the-box" approach
to negate the experiential mind-set of "that's the
way we have always done it" that influences
current efforts.*

In the information age, compressed time dramati-
cally affects the commander's ability to assess the
situation, make a decision, and then act. Radical
change requires moving away from designing CPs
around the military decisionmaking process. The
U.S. Army Training and Doctrine Command
(TRADOC) action officers and senior leaders will
chair meetings and conferences to determine new
CP designs, only to be met with defeat or bureau-
cratic inaction. It would seem that these meetings
are uniformly unproductive because their premise is
flawed. These conferences normally invite each
branch and functional proponent to contribute to the
CP design by submitting its personnel and equipment
requirements. Proponent representatives' perceptions
of what functions the new CP would require and
emerging doctrine would guide their input into the
design process. Proponents lobby hard to convince
leaders that without their presence and support in
the tactical operations center (TOC) soldiers will die.
Collecting each proponent's requirements into one
unit always produces the same outcome. The CP
does not become smaller; it grows exponentially with
the number of proponents. Look at the size and com-
plexity of current CPs to see how successful they
have been at increasing CPs' size and complexity.

Today's Army is conceiving, shaping, testing, and fielding an Army that must be prepared to meet the challenges of the new millennium at a furious pace. Technological advances continue to shape the way the Army will fight. The pace of operations and the volume of information are now greater than ever before. A key factor in the success of this change is the unit CP. Transitioning from current C2 operating procedures and processes using radical, revolutionary thought is the focus of this article. To function in an environment like the one described, a sea change in thought and actions on CP roles and functions is required to design and field future CPs.

CP Design

Imagine the bridge of the *Starship Enterprise* as the ideal 21st-century CP. It has all the basic requirements: a small, integrated staff; instant access to information from all supporting elements; and large-screen situational awareness. It would not be a great stretch to apply the starship model to Army C2 requirements. In Lewis Carroll's book, *Alice in Wonderland*, the Mad Hatter counsels Alice: "If you don't know where you are going, any road will get you there." This sentiment might aptly describe current CP design efforts and results.

One would expect that CP design and reorganization efforts would accomplish more than moving battlefield operating system (BOS) cells from one location to another without increasing efficiency. An analogy of current CP development methods is one in which Boeing develops the 747 by contracting with United Airlines to produce an improved 737 while it is still in service. On the surface, the 747/737 comparison seems an extreme analogy, but is it? The tasks of designing a new aircraft or designing a new CP with digitized C2 capabilities share similar levels of design complexity and system integration. A new CP design model is clearly required to realize significant increases in performance while improving efficiency and survivability. Both examples display that failing to perform a job correctly can result in catastrophic consequences. Force XXI CP design requires new thought paradigms. Designers must adopt a radical "out-of-the-box" approach to negate the experiential mind-set of "that's the way we have always done it" that influences current efforts.

Proposed Developmental Paradigms

Changes in the way we think and approach C2 require several different but interrelated elements. Evolutionary change requires a forward-looking, anticipatory approach to horizontal and vertical integration and synchronization of doctrine, training, leader development, organization, materiel, and soldier support initiatives from a total system perspective. Each

CP design is rooted in a set of baseline, but immutable, functions of battle command processes and procedures at each echelon for each proponent. Following are some development paradigms.

The perils of semantics. The first step toward thinking out of the box is to break away from current doctrine's terminology and semantics. Uncontrolled, diversity in perceptions and experiences is

> *Proponent representatives' perceptions of what functions the new CP would require and emerging doctrine would guide their input into the design process. Proponents lobby hard to convince leaders that without their presence and support in the TOC soldiers will die. Collecting each proponent's requirements into one unit always produces the same outcome.*
>
> *The CP does not become smaller; it grows exponentially with the number of proponents. Look at the size and complexity of current CPs to see how successful they have been at increasing CPs' size and complexity.*

one's worst enemy in designing new CPs. However, with control and focus, diversity is an inherent strength. The procedures and processes individuals have experienced in previous CPs limit their ability to think outside the box. Therefore, when discussing CP operations, 10 experienced commanders and staff officers may have 10 different visions of how to apply the concept they just discussed. Subsequently, papers, e-mails, and workshops that follow are ineffective due, in part, to the participants' different perspectives and experiences. These efforts result in merely rearranging BOS cells and elements within current organizational structures without substantially changing end-state design, efficiency, or survivability.

To limit the effect of experiential perceptions when developing new concepts, change the C2 terminology during the conceptual stage. For example, address future CPs as control and direction centers. What they are called is less important than the mind-set present while conceptualizing a new design. "Business as usual" limits design options by assuming predetermined mind-sets. The result is similar to rearranging the deck chairs on the Titanic, whereby there are no substantive direction changes. It is essential that semantics be changed to limit current commanders' and staffs' experiential perceptions so they can think outside the box and achieve a fresh, innovative perspective of new C2 doctrine and facilities design.

Question C2 doctrinal and operational norms. The second essential element of thinking out of the box is to question the way C2 is currently conducted. For example, do units still require a tactical (TAC) CP? Maybe not! Research shows that there

> *Radical change requires moving away from designing CPs around the military decisionmaking process. TRADOC action officers and senior leaders will chair meetings and conferences to determine new CP designs, only to be met with defeat or bureaucratic inaction. It would seem that these meetings are uniformly unproductive because their premise is flawed.*

is no definitive documentation directing the establishment of a TAC CP as an element of a C2 structure. Yet, every maneuver headquarters above battalion has some form of TAC CP. The TAC CP was probably originally the idea of a commander who displaced one vehicle forward from his main CP to support radio communications with his forward units. He could then work from the vehicle without traveling back to the main CP. Other commanders likely used this idea because it was successful and solved a common problem.

Eventually, using a TAC CP became the norm and found its way into doctrine. What may have started out as one M577 or other CP vehicle evolved into today's TAC CPs, with eight, 10, or more supporting vehicles. In reality, the TAC CP simply evolved over time. This evolutionary process resulted in its current position as an essential element of CP operations. Once in doctrine, the TAC CP became a documented and accepted requirement for successfully applying C2 doctrine. Today's TAC CP growth in size, complexity, and importance borders on being dysfunctional to effective C2 operations. Out-of-the-box thinking requires serious questioning of both doctrinal and operational norms.

This article does not imply that a commander no longer needs to go forward. A commander must go forward to be a successful leader during battle, but a commander may no longer have to go forward to control tactical operations. If the limitations of the range of the radio communications structure created the original requirement for a TAC CP, then it evolved for all the right reasons. Today, however, advances in digitization and communications would negate this requirement. Major General P. Wood, commander of the 4th Armored Division during World War II, is an example of a commander who used successful battlefield C2 techniques. Wood commanded his division in combat well forward and issued orders from the hood of his jeep.

Today's battlefield commander can see and control his forces more effectively from his main CP, which means the TAC CP is no longer a viable C2 mechanism. Other C2 functions also require scrutiny: staff structure at all echelons; supporting elements such as the fire support element (FSE), engineer, and air defense artillery (ADA) cells; the rear CP; and a planning cell. Each of these norms requires review and revision.

Design to proven baseline parameters. Managing the critical requirements of CP design requires a set of proven parameters with which to measure effectiveness and efficiency. These parameters support the designing and testing phases of CP development. More important, they offer easy-to-understand rules that will filter unneeded functions or processes that migrate into the CP structure. Commanders need baseline design parameters to follow when developing the CP's conceptual and physical capabilities. Each parameter will support change, but it is within their collective synergy that real change will begin. The following suggest some developmental parameters for CPs:

Form follows function. Real design change must start with a change or revision of proven or perceived C2 functions. Renowned architect Frank Lloyd Wright used the concept of "form follows function" in all of his building designs. Using this concept, Wright would identify and study the functions to be performed in the building and then design the structure to support those functions. Today, it seems that there is a "ready, aim, fire" approach to CP design—determining the number of vehicles needed to support the CP and its physical layout and then determining its functions. CP design must be function based rather than based on the perceptions of novice designers and developers. A no-kidding list of critical wartime functions is required to allocate space and equipment to support that function.

Unit is committed to combat. The premise of this parameter is that the unit is actively committed to a combat operation in which soldiers are in harm's way. Those who have been in combat know that such a situation warrants establishing priorities quickly. However, one day, the Army will encounter a tougher foe than Saddam Hussein's Republican Guard or unorganized riffraff in the Third World. When that day arrives, there will not be anything virtual about the reality. CPs designed around deploy-

The 4th Squadron, 7th Cavalry TOC in Iraq, 2 March 1991.

Do units still require a tactical TAC CP? . . . What may have started out as one M577 or other CP vehicle evolved into today's TAC CPs, with eight, 10, or more supporting vehicles. . . . Once in doctrine, the TAC CP became a documented and accepted requirement for successfully applying C2 doctrine. Today's TAC CP growth in size, complexity, and importance borders on being dysfunctional to effective C2 operations. . . . Today's battlefield commander can see and control his forces more effectively from his main CP, which means the TAC CP is no longer a viable C2 mechanism.

ment or planning tasks do not reflect the exigencies of combat. The reality of combat operations must be the standard from which each design is developed and measured. Author Guy Sager's book, *The Forgotten Soldier*, graphically describes the conditions to be experienced in combat and under which the CP must function.

Establish baseline information requirements. This design parameter implies that there are a limited number of critical information requirements necessary for a unit to conduct combat operations. For example, the commander of a heavy brigade must be aware of certain fundamental information requirements regardless of the mission or area of operations. At a minimum, the commander requires the location of his subordinate elements one level down, the status of class III, the status of class V, the status of his fighting vehicles, personnel status, and enemy units' locations. These five baseline information requirements are critical to successful brigade combat operations. A light brigade commander's baseline functions would necessarily be somewhat different in that he would be less concerned with the status of class III. They apply whether the unit

is fighting conventionally in Iraq or conducting peace enforcement operations in the Balkans.

The S3 provides unit locations, the S4 provides the status of classes III and IV, the S1 provides personnel status, and the S2 provides enemy units' locations. During combat, all other information is noise to the commander that inhibits his ability to maintain situational awareness. Any other information requirements are situational requirements that can be added and deleted, according to the mission. This example applies to all command and staff functions in each proponent of the C2 architecture. Determining the baseline information requirements of each CP for each echelon and proponent will set the parameters for identifying mandatory equipment and personnel. When information is filtered this way, excess, nonessential information is removed, and the commander and staff can wrestle with the factors that are critical to winning on the battlefield.

Reduce physical size. To survive, the future CP must be small and agile. It should contain only those personnel and supporting vehicles necessary to support combat functions. Being small increases the CP's survivability through increased mobility. A small

physical footprint increases the enemy's difficulty in distinguishing between a division CP and a lower-priority CP. A division-level main CP can conceivably consist of four to six vehicles. Digital capabilities allow the CP to electronically collocate and conduct operations on the move without degrading efficiency. By reducing its physical size, the CP le-

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Developers should analyze the efficiency of roles and functions of major subordinate command support or slice elements in current FSE or ADA facilities. These support elements are a throwback to World War II and the Cold War when communications were less efficient and commanders required a BOS subject matter expert close by for employment advice.

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verages the advantages of increased mobility, increased survivability, and mobile operations. Developers should analyze the efficiency of roles and functions of major subordinate command support or slice elements in current FSE or ADA facilities. These support elements are a throwback to World War II and the Cold War when communications were less efficient and commanders required a BOS subject matter expert close by for employment advice.

The CP's physical size and complexity contribute to the CP's electronic footprint. The 21st-century CP will be vulnerable to targeting by enemy electronic and information operations capabilities. The January 2000 version of the new interim brigade combat team brigade main TOC alone identifies more than 75 separate vehicles. Assume that each vehicle has one or more radios or electronic devices that are vulnerable to electronic targeting. CP designs must limit the electronic emissions of dig-ital and analog equipment. Electronic collocation will significantly reduce battlefield electronic footprints and thus increase survivability. Reducing CP size requires determining the physical lo-

cation of personnel supporting C2 architectures. G1 and G4 functions are easily performed from the rear, so why do those staff members need to be forward?

Leverage digitization. In the midst of creating tactical internets, client servers, local area networks, applique, and Army Battle Command System initiatives, it is difficult to know how to dominate a battlefield using technologically provided knowledge. Digital equipment can provide real-time, merged information for the commander in a clear, uncluttered common operating picture (COP). An absence of current digital capability is no reason to discard an idea. Establishing such a requirement will hasten that equipment's development. Digital equipment pushes baseline data to the commander at the appropriate echelon, but at the same time, it allows the commander to pull additional data about subordinate, adjacent, and higher units, as required. Combined with other parameters, digitization improves overall operational efficiency. Digitization, if developed from a functional basis, can give the commander a clearer, quicker, more complete picture of a tactical situation through a properly designed COP. The reachback concept is an example of using digitization to reduce the number of sustainment organizations in emerging transformation unit designs. Reachback-capable units rely on the push-pull concept of logistics support from a logistics base in theater or within the continental United States. This is also a large portion of transforming the intelligence concept.
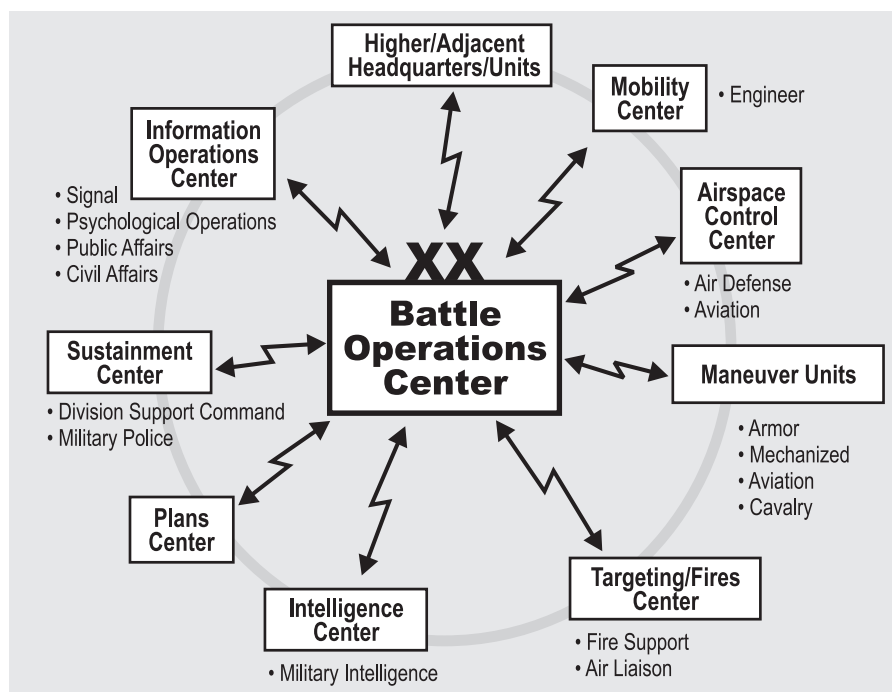

Figure 1. Battle Operations Center (BOC) Integration Concept

A Radical Design Concept

Using the design paradigm and parameters described earlier, future CP designs are more effective than current designs. The C2 functions of personnel, logistics, intelligence, and operations will provide effective control on the battlefield. These staff elements, residing in combat CPs, have served the Army well in all previous wars. There is no reason to doubt that whatever their genesis, these core functions are on target. Each of these battle staff elements includes a baseline set of information requirements that support the commander's situational awareness and decisionmaking ability.

Why not begin the design process by eliminating all staff elements from a CP except operations, personnel, intelligence, and logistics? We use these functions to identify the baseline commander's critical information requirements (CCIR) and then develop the CP concept around them. To lessen the impact of semantics on our thinking, the new CP is a battle operations center (BOC). This way, no one visualizes previous CPs, and minds are clear of experiential perceptions.

Figure 1 represents a conceptual integrated division-level BOC. This design uses electronic collocation to eliminate the main, rear, and TAC CPs and any accompanying duplication of effort. All supporting functions—engineer, aviation, FSE, and ADA—are returned to their proponent CPs. For example, the division engineer now supports the BOC with critical engineer information from the mobility center. With digitization, the BOC commander or his command group can get the same data directly from the engineer brigade quicker and more efficiently than the division engineer cell could. Removing the division engineer cell removes another roadblock to effective, efficient communications. The mobility center would be the center of engineer C2 functions anchored by the senior supporting engineer unit.

Moving proponent and branch functions back to their parent CPs has several positive effects. First, it reduces the number of personnel and equipment at the division BOC, thus reducing its size and increasing mobility and survivability. Second, still using the engineer example, it reduces the number of personnel on the engineer brigade's modified table of organization and equipment as organic staff initially generated the information requirements. There is no longer a requirement for a division engineer cell. This same analogy pertains to all supporting proponent functions and has the same positive cumulative effects. This does not mean that, given a special mission or situation, an engineer or other element could not plug into the division BOC. The plug-in would only be temporary, and once the situation passed, the element would unplug and return to its primary C2 center.

In the end, every aspect of the C2 system is focused on enhancing the commander's ability to see the terrain at every level; to see the enemy; to see himself; to employ combat power with precision; and to visualize how to employ his forces against the enemy at the time and place he chooses. In the final analysis, all combat actions, requirements, and initiatives apply to one or more processes or functions a unit CP requires somewhere on the battlefield.

In this concept, each piece of mission-specific information travels manually or digitally to the operations, intelligence, logistics, and/or personnel functions

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At a minimum, the commander requires the location of his subordinate elements one level down, the status of class III, the status of class V, the status of his fighting vehicles, personnel status, and enemy units' locations. . . . The S3 provides unit locations, the S4 provides the status of classes III and IV, the S1 provides personnel status, and the S2 provides enemy units' locations. During combat, all other information is noise.

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in the BOC. The staff manning these functions coordinates, integrates, and synchronizes current and future operations requirements. All intelligence information requirements enter the BOC through the G2 or intelligence cell communications devices. The G2 filters the information to only what information the commander thinks applies to current or future tactical decisions by updating the commander's COP. These staff elements filter information to reduce the information quantity and complexity that the commander receives.

Pushing up baseline information requirements to the BOC reduces clutter and frees the commander and his staff to analyze critical information. The BOS functions that formerly collocated with the maneuver or command BOC return to being function-specific BOCs in their own right. The Airspace Control Center, for example, can consist of both the aviation brigade and ADA battalion BOCs because deconflicting airspace is critical. These elements do not have to be collocated at the main supported BOC to communicate with it. Critical baseline information requirements must be determined for each center to establish standing operating procedures (SOPs) and reporting protocols.

This design also allows increased redundancy and data duplication so that servers at other centers store all information, allowing a unit to quickly assume the functions of a destroyed cell. It improves survivability
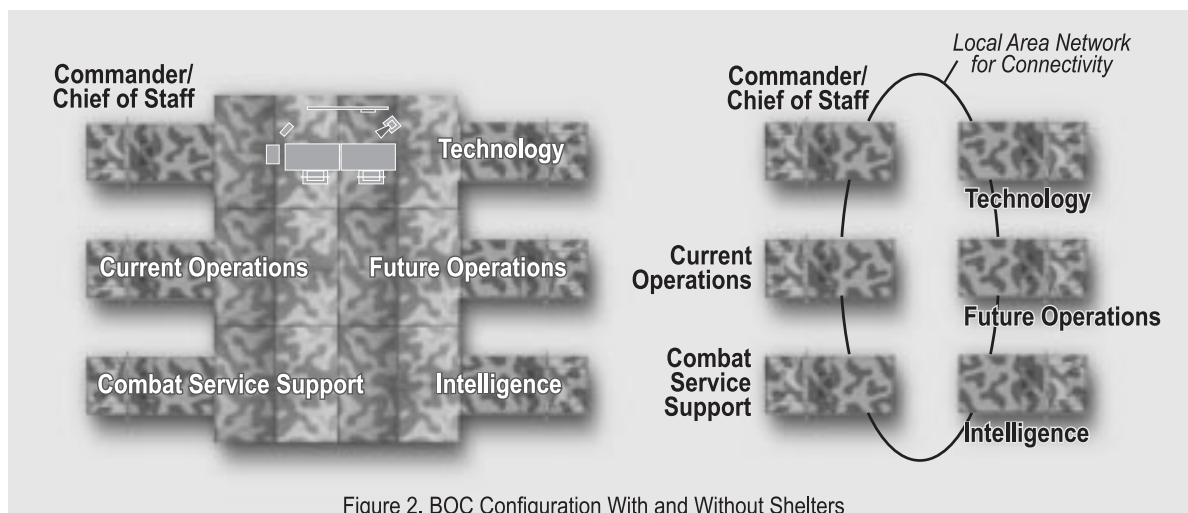
Figure 2. BOC Configuration With and Without Shelters

by dispersing CPs with similar electronic signatures. Overall, this design will reduce the size and complexity of all CPs. The centers can support operations from home station, on the ground in theater, or from ships. The electronic collocation capability provides the flexibility to respond to unforeseen situations.

The nerve center of this concept is the division BOC. Operationally, the BOC is a redesigned division main CP. The BOC receives all CCIR that are generated on the battlefield. Figure 2 represents a conceptual design of a division BOC. This design can also be applied to corps, brigades, or battalions. Without the proponent elements and their accompanying support, the BOC can reduce its size, potentially operating more efficiently with increased survivability. The BOC employs a modular concept with an easy plug-in and plug-out capability for organic and task-organized units to support situational requirements.

All BOC equipment is permanently mounted in high-mobility, multipurpose wheeled vehicles or designated CP vehicles to enhance deployability, sustainability, and survivability. In a committed environment, operators and battle captains function from within the vehicle shelter. There is no requirement to erect external shelters during tactical operations. CCIR feed directly into each element's COP. The vehicle's driver is prepared to move out of the CP location to a rally point at a moment's notice if the BOC is attacked. Time is not a factor because there is no requirement to load or pack equipment before movement. Tents or other shelters are left in place because, realistically, in combat, they are not important compared to the survival of the unit's C2 capability. CP personnel operate communications equipment remotely from the vehicle when uncommitted.

Establish a C2 University

Our goal is to speed up the requirements determination process while at the same time improving its products. We must find smarter ways to do business, streamline our management processes...and use what we have more effectively in order to become more effective.
— General Dennis J. Reimer
Chief of Staff, U.S. Army

Implementing this concept will require a facility in which testing each concept ensures complete integration across the force. Equally important is developing training packages to support the new concepts. The U.S. Army Combined Arms Center (CAC) is postured to take the lead in developing and coordinating an innovative C2 development strategy that supports warfighter C2 requirements as well as future force CP developments. CAC should establish a C2 university to support Armywide C2 research, design, and training. The university could become the Nation's preeminent C2 training facility and showcase learning, training, and creative CP design endeavors at all Army echelons as well as joint services and combined operations.

Embedded in the C2 university structure is a CP skunkworks—a national laboratory for integrating innovative C2 concepts, operating procedures, and training packages. In a skunkworks environment, design engineers are free to pursue concepts without pressure from special interest groups. The skunkworks would serve as the CP operations clearing house in which CAC would be responsible for designing and testing all battalion through echelon above corps CPs and approving all new CP equipment. This responsibility would include developing and testing CP processes and SOPs. Each CP undergoes rigorous classified and unclassified opera-

tional testing before its design goes into full-scale production for fielding. CAC has the resident civilian and military work force to battle roster staff assignments with civilians, permanent-party staff, and Command and General Staff College instructors and students to establish functional consistency during testing. Testing new equipment at the skunkworks ensures that it fully supports emerging processes and is compatible with systems currently being used.

Equally important, however, is the ability to support the developing CP training programs. Using the Boeing 747 analogy, when an airline buys a new airplane, Boeing provides qualification training for the pilots and maintenance personnel, and a complete support and training package to the organization buying the aircraft. The Army should follow this model when fielding new CPs. New CP equipment would be sent to Fort Leavenworth, Kansas, directly from the factory production line. At Fort Leavenworth, qualified skunkworks personnel would thoroughly inspect the new CP equipment to ensure that all systems operate according to specifications. The unit CP personnel would then receive their new equipment and participate in a rigorous 2-week Battle Command Training Program warfighter-type training exercise. Successful completion of this training would result in a CAC competency certificate. Once certified, the unit would sign for its equipment and transport it back to home station.

Army aviation used a variation of this concept to field AH-64s to aviation battalions stationed at Fort Hood, Texas. The C2 university could provide initial and refresher training in CP procedures to new commanders and staffs. Each unit would leave Fort Leavenworth fully trained on proven CP processes and procedures on fielded CP equipment. Through this concept, CAC would establish and maintain a consistency of C2 operations throughout the Army and effectively raise the bar for CP operations.

Each TRADOC school and center can establish the same model for its proponent CPs. For example, Fort Rucker, Alabama, would establish a skunkworks for all aviation CPs. Each site could conduct exercises through the World Wide Web. With CPs electronically collocated, real-world testing of complete systems can occur through standardized processes, developing each CP into an integrated whole. CAC would oversee all proponent school and center certification requirements. The Army can establish links among all proponent battle labs to de-

> ***Equally important is the ability to support the developing CP training programs. Using the Boeing 747 analogy, when an airline buys a new airplane, Boeing provides qualification training for the pilots and maintenance personnel, and a complete support and training package to the organization buying the aircraft. The Army should follow this model when fielding new CPs.***

velop and standardize CPs for like forces. The Armor Center would manage heavy forces, the Infantry Center would manage light forces, Fort Rucker would manage aviation, and so on.

By identifying and harnessing promising technology, we can pass critical, time-sensitive information to the Warfighter TOC to assist battle command. Battle command is the cornerstone BOS and is critical to coordinating, synchronizing, and integrating available assets on a fast-paced battlefield. The past is truly the prologue to the future in increasing CP efficiency and effectiveness on the 21st-century battlefield.

Imaginations are the only limitations in the CP arena. The ideas presented in this article could prompt CAC to take the lead in designing new CPs. Baseline design parameters are the overarching factor for new CP design and development processes. A C2 university could provide a controlled test-bed for managing change and a methodology for analyzing Force XXI C2 issues and developing integrated force-level solutions. A skunkworks development and experimentation facility concept could give the Army an institutionalized end-to-end functional design and training capability. The concept could enable the Army to develop and export a total package of proven and integrated system of systems C2 tactics, techniques, and procedures and CP designs within a controlled, developmental environment. It could allow the Army to identify any C2 operational problem areas, both known and unknown, by applying a process reengineering methodology.

The CP is the critical component for applying innovation, and as such, it is simultaneously the area of greatest potential payoff and potential vulnerability. CP operations can ensure success when conducted well or result in failure if conducted poorly. **MR**

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Irredentism

in
MexAmerica

Mark de Socio and Christian Allen argue that economic and cultural integration along the U.S.-Mexico border is creating a "borderline nation" whose identity is distinct from the United States or from Mexico. Despite this integration, a history of territorial and ethnic antagonisms, acerbated by law enforcement efforts to stem illicit drug trafficking and undocumented migration, is creating social conflict. The result is an irredentism unique to MexAmerica.

Cars wait for inspection at U.S. Customs / Border Patrol checkpoint at Hidalgo, Texas. The county is the site of some of the most intense drug smuggling activity along the entire border. The construction of two new commercial bridges here complicate law enforcement efforts.

BORDERLANDS often function as crucibles in which new and distinct national identities emerge. Contextual factors in forming frontier identities include increased economic and cultural integration, the presence of border patrols and law enforcement agencies, economic disparities across international borders, and illicit migrant and commodities traffic commonly associated with frontier lands.[1] Neighboring states' core institutions are often weak in frontier zones, and emerging borderland identities are sometimes at odds with existing states, thus prompting state efforts to secure or resecure boundaries.[2] The incongruence between culturally based transnational identity and state identity can generate pressure for formal political separation.[3]

Complex border landscapes are produced through a unique set of cultural, economic, and political processes that occur over space.[4] To understand these processes, consider a "localized, particularistic, and territorially focused notion of borders" applied to the U.S.-Mexico border region noted for its spaciousness, its juxtaposition of core and periphery, and its peculiar situational context of integration and fragmentation.[5] The U.S.-Mexico border region exhibits a high degree of economic and social integration that is increasingly recognized as a borderline nation that is distinct from both the United States and Mexico (see the map). This article examines the intertwined economic and social processes that define the frontier landscape that author Joel Garreau illustratively calls "MexAmerica."[6]

Low-intensity social conflict can be expected to accompany increased cross-border integration, particularly illicit drug trafficking, undocumented migration, and law enforcement responses.[7] However, in the historical and situational context of U.S.-Mexico border dynamics, including a history of territorial and ethnic antagonisms, routine levels of social conflict are magnified. The United States' efforts to assert its sovereignty over the border periphery have heightened social conflict in the region. Consequently, irredentism is a potentially serious manifestation of intensifying social conflict.

Irredentism

The term "irredentism," from the Italian word "irredenta," meaning unredeemed, was coined to describe "the Italian movement to annex Italian-speaking areas under Austrian and Swiss rule during the nineteenth century. It has since come to encompass any political effort to unite ethnically, historically, or geographically related segments of a population in adjacent countries within a common political framework."[8] Author Donald L. Horowitz defines irredentism as "a movement by members of an ethnic group in one state to retrieve ethnically kindred people and their territory across borders."[9] Hedva Ben-Israel reports that "the key aspect of irredentism . . . is the tension between land and people."[10] Yet another author, Jacob M. Landau, defines irredentism as "an ideological or organizational expression of passionate interest in the welfare of an ethnic minority living outside the boundaries of the state peopled by that same group. Moderate irredentism expresses a desire to defend

Christian Allen

Laredo, Texas.

the kindred group from discrimination or assimilation, while a more extreme manifestation aims at annexing the territories which the group inhabits."[11] Naomi Chazan identifies three broad typologies of irredentism:

 A population that forms an ethnic majority in a contiguous region within a country in which it is otherwise an ethnic minority may attempt to withdraw or secede from its political framework to merge with a neighboring state where ethnic kin form the national majority.

 A state whose ethnic majority population is a minority in a neighboring state may attempt to incorporate that neighbor's regions where its ethnic kin is concentrated to form regional majorities.

 An ethnic minority that spans two or more neighboring countries but that forms a majority in a contiguous transnational region.

Chazan and Horowitz provide contemporary examples of irredentist phenomena, ranging from the conflict in Kosovo (type I) to the conflict in the Kurdish regions of Turkey, Iraq, and Iran (type III). Iran's claim on Bahrain is an example of type II irredentism.[12] MexAmerican irredentism is a new hybrid type IV that is unique in its complex, multidirectional integration of territory and transnational identity.

The theoretical formulations of irredentism that Chazan, Horowitz, and Ben-Israel present fall short significantly. Primarily, these authors fail to appreciate power dynamics' constraints on irredentist movements. For example, Horowitz notes that secessionism is far more prevalent than irredentism in international affairs, even in countries where secessionist regions would fare worse economically as independent states. He attributes this to groups choosing secession over irredentism, given that secession is a required first step for any irredentist platform to be realized.

Horowitz states: "Secessionist regions are disproportionately ill favored in resources and per capita income. Not infrequently, groups attempt to withdraw from states from which their region actually receives a subsidy. In numbers that are both absolute and relative to the possibilities, secession is much more frequent than irredentism, and this despite the enormous obstacles to success and the disadvantages most secessionist regions would face were they to succeed. By contrast, irredentism is rare, even though the [second] subtype of the definition of irredentism would usually involve the armed forces of one state in retrieving kinsmen across borders from another. One reason there are few irredentas may be that many groups that have a choice between irredentism and secession find the latter the more satisfying choice. Indeed, the potential for irredentism may increase the frequency and strength of secession, but not vice versa."[13]

Horowitz does not consider that the infrequency of explicitly irredentist platforms is a result of hegemonic group dynamics. This is not to say that other authors do not recognize the existence of power relations, especially given that irredentism and secession often arise from explicit or perceived hegemony of majority populations or state institutions over minority populations. Indeed, Chazan alludes to power dynamics by asserting that irredentist sentiments can lay dormant for years, even decades, until an opportunity arises for its expression. However, she does not elaborate on why irredentism may lay dormant for any number of years.

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MexAmerica

	MexAmerica
Sources: Birdsall and Florin: 1992, Garreau: 1981, INEGI 1998, SEOFI: 1998	

We contend that irredentism does not necessarily lay dormant. Rather, irredentism is a form of intensified social conflict. In cases where social conflict is minimal or nonexistent, irredentism may also be nonexistent. In cases where social conflict does exist, irredentist aspirations may be stifled by a real or perceived threat of repercussion from politically empowered populations or from the state. Landau acknowledges that irredentism can be an expression rather than an overt action. This definition allows for the explanation of irredentist cases that may have emerged after years of dormancy. More important, it supports the notion of irredentism as a form of social conflict that exists even where irredentist solutions to intensifying social conflict face long odds, given the dominating state's hegemonic status.

The notion of irredentism as an expression, or form of social conflict, is important in other ways. It acknowledges that nations are social constructs, meaning that group identification is value laden and flexible. The fluidity of nations as social constructs allows populations to politically mobilize against perceived social injustices and discrimination by drawing closer together through constructing iconographies and group identities. Second, irredentism as expression allows for a broader interpretation, freeing us from rigid criteria in which a set of stipulations must be met and assuming that only at some ill-defined point in a complex process does irredentism become irredentism. Chazan recognizes such operational constraints when she writes, "The definition of irredentism therefore requires refinement and elaboration, with particular emphasis on the possible fluidity of irredentism in specific historical and situational contexts."[14]

A multiscalar review of spatial processes operating in the U.S.-Mexico border region underscores the flexible nature of irredentism in a specific

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historical and situational context and offers a more nuanced understanding of borderland processes occurring there. The process of irredentism is fundamentally geographic, encompassing social and political conflict in space, with significant implications for static states and dynamic nations.

The U.S.-Mexico Border's Historical Geography

Strong centrifugal forces in the form of sectionalism and federalism historically have been present in Mexican national politics since Mexico's independence from Spain in 1810. In its earliest years, the Mexican state struggled to maintain its territorial integrity, and U.S. (Anglo) migration into the province of Tejas was of particular concern.[15] To delay a seemingly inevitable conflict with an expansionist United States, Mexico formally invited Anglo settlers to help develop its barren northern frontier. Mexican politics remained volatile, however, and when Mexico "formally refused to grant concessions to Anglo-American Texans analogous to those given to Louisianans by the United States, outright rebellion began. The independent Republic of Texas was proclaimed on March 1, 1836, and its sovereignty was assured following victory in the Battle of San Jacinto on April 21."[16]

Texas became an independent state, but Mexico refused to relinquish its sovereignty. While Mexican politics remained fractious, recovering its renegade province was one issue that consistently rallied popular support throughout the country. Despite sectional politics of its own that had until then delayed Texas' formal integration into the United States, U.S. President James Polk unilaterally annexed Texas in April 1846, prompting Mexico to declare war. In Mexico, and among many Mexican-Americans, the war is commonly referred to today as the North American invasion.[17] Despite having declared war, Mexico fought a defensive struggle that quickly proved unsuccessful. By 1848, U.S. forces occupied Mexico City, and Mexico was forced to negotiate peace on U.S. terms. Author Rudolpho Acuña asserts that it

A storefront in Reynosa, Mexico.

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was under the duress of military occupation that Mexico agreed to the Treaty of Guadalupe Hidalgo. Under the treaty, Mexico relinquished control of not only Texas but of territories comprising the modern U.S. states of New Mexico, Arizona, Nevada, and California and parts of Colorado and Utah.[18]

The Treaty of Guadalupe Hidalgo granted U.S. citizenship to inhabitants of the newly acquired territories and recognized their land holdings and titles. Yet, in the years after the war, Mexicans who lived in territories that were incorporated into the United

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States lost their lands to Anglos through "theft, intimidation, swindles, dubious legal challenges, and the burden of related court costs, taxes, and other debts, as well as purchases."[19] Consequently, a conflict known as the Cortina war broke out in and around Brownsville, Texas, in 1859. Juan Cortina, a local rancher, led a revolt against Anglo settlers, gaining widespread support among Texas Mexicans, or mexicanos, who comprised most of the region's population.[20] This was perhaps the first violent manifestation of pro-Mexico irredentism on the U.S. side of the border, and U.S. military forces and Texas Rangers were deployed to end the rebellion. However, "for many years, mexicanos on both sides of the Rio Grande shared a[n] [irredentist] desire for reunion, since the river was a particularly artificial boundary in this area."[21]

Another irredentist program emerged around 1915, during the time of the Mexican Revolution, called the Plan de San Diego.[22] The plan demanded that American occupation end and that an independent republic comprised of all or parts of Texas, New Mexico, Colorado, Arizona, and California be established. The rebellion lasted nearly 2 years as rebels raided Anglo ranches, banks, businesses, and forts before the U.S. Army, the Bureau of Investigation, and Texas Rangers reestablished order.[23] "Many [of the rebels] came from the classes of the Texas-Mexican community that were most threatened by the rapidly expanding Anglo farm economy, and the majority of the guerrilla raids took place in the counties most affected by this new economy."[24]

Political fragmentation in Mexico led to rebellions on that side of the border as well. In 1840, local border adventurers in the northern Mexican states of Nuevo León, Tamaulipas, and Coahuila established the Republic of the Rio Grande and announced their intent to include parts of Texas in their new republic. This fringe effort fizzled as Mexico dispatched troops to the region and Texas Rangers deployed to ensure the integrity of the Texas border.[25] Another self-styled independence movement occurred in the same region just a few years later. This time rebels proclaimed the "Republic of Sierra Madre," but it shared a similar fate.[26]

After the Mexican Revolution, sporadic conflicts along the border subsided, effectively ushering in a new era of relative peace. Although overt military confrontation had subsided, low-intensity social conflict persisted primarily because of continuing social and economic discrimination against Mexican-Americans on the U.S. side of the border: "On the whole, it is clear that from its establishment in 1848 through the Mexican Revolution, the U.S.-Mexico border was the site of conflict as well as periodically intense, militarized efforts to pacify the region. Mexicanos did not quietly submit to Anglo domination, but rather contested the official definition of the border in a variety of ways, resisting Anglo control of the border region for some 70 years. Such open conflict and intense militarization did not occur after this period. This may have been in part due to the fearsome legacy of the pacification period. Events from that era made it clear that mexicanos on the U.S. side of the border occupied a subordinate position in the region and would suffer severe sanctions if they attempted to alter significantly the status quo. With this principle emphatically established, border militarization [and social conflict] assumed relatively subtle forms in subsequent decades."[27]

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During this period of relative calm, economic and social integration between border communities substantially increased despite systematic discrimination against Mexican-Americans and Latinos on the U.S. side of the border. This discrimination persisted into the 1960s, including brief periods of intense police action and federal deportation programs such as Operation Wetback at the end of the Bracero Program in the 1950s.[28] Consequently, social conflict increased once again, culminating in the civil rights and Chicano movements of the 1960s and 1970s. Irredentism emerged as a form of expression in the socially constructed concept of Aztlán, or Chicano homeland, among many Latino activists.[29]

Integration

Today, the U.S.-Mexico border region is characterized by an extensive degree of economic and social integration. A long history of economic and cultural interaction among residents on both sides of the border has led to the emergence of a transnational region that shares a single transnational identity.[30] Barry R. McCaffrey, former U.S. drug czar, describes the unique nature of this emerging region: "The culture of life here is not Mexican, or American, or Native American, or Spanish, or Hispanic. It is a [mixed] border culture, which is strengthened by diversity and made possible by the free flow of exchange between and among our societies."[31] Author J. F. Holden-Rhodes comments: "Rather than an arbitrary line separating two countries, La Frontera is a state of mind that stretches for fifty to one hundred miles on either side of the border."[32]

Indeed, a unique culture with shared languages, values, and cultural traditions separates the border region from both the United States and Mexico.[33] "Spanglish," a distinct regional linguistic fusion of Spanish and English, is spoken commonly throughout the border area. The region has produced a distinctive Tex-Mex cuisine now found in restaurants across the United States. The borderlands are home to a variety of musical genres, including Norteña and Tejano, performed by popular bands such as Aztlán

Underground and Rage Against the Machine. The late Tejano star, Selena, brought national attention to the distinct regional sound. Artists working in a variety of media have drawn inspiration from the region's unique character, making it more distinct.[34] Social and cultural interaction have advanced to such a degree that cities in northern Mexico exhibit urban forms generally associated with U.S. postwar urban development.[35]

While this cultural integration is both noteworthy and important, developing an integrated border economy is even more striking. The past decade has seen a dramatic rise in U.S.-Mexican trade, the overwhelming majority of which passes through the border region. Regardless of whether this trade links consumers or producers actually located in MexAmerica, it generates cross-border economic integration. Warehousing, transportation, and other trade-related infrastructure and services represent a significant economic activity, considering the massive volume of traffic crossing the border at the 39 official points of entry and exit. In 1999, more than 4 million trucks and nearly half a million railcars carried goods through these channels.[36] With U.S.-Mexican trade likely to continue its upward trend, MexAmerica's prominence as facilitator and entrepot will increase apace.

Another important measure of growing economic integration is the United States' expanding flow of direct investment into Mexico. Direct investment represents relatively long-term, stable commitments to productive facilities and provides evidence of functional integration between the two economies. For a variety of reasons, most U.S. multinational firms operating in Mexico prefer locations on or near the border.[37] These factors include cultural familiarity, reduced shipping costs, and the demands of just-in-time inventory systems. While direct investment integrates the two national economies, it does substantially more to link Mexico's northern regional economy to the United States.

Preferences for border locations are reflected in the spatial distribution of Mexico's numerous assem-

The situational context of U.S.-Mexico border dynamics poses additional problems in light of current U.S. immigration and drug interdiction policies; most notably, the emergence of irredentism. For example, measures the U.S. Border Patrol has taken to stem the flow of illegal immigration into the United States have raised human rights concerns in the United States and Mexico.
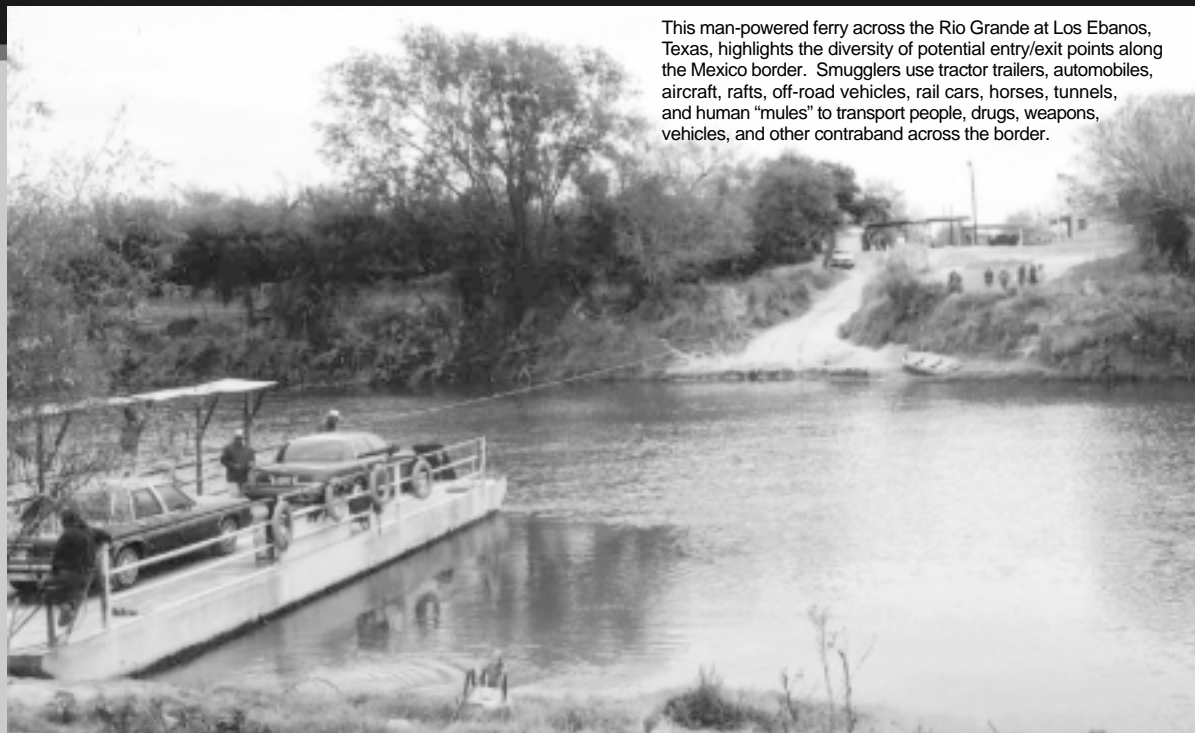
This man-powered ferry across the Rio Grande at Los Ebanos, Texas, highlights the diversity of potential entry/exit points along the Mexico border. Smugglers use tractor trailers, automobiles, aircraft, rafts, off-road vehicles, rail cars, horses, tunnels, and human "mules" to transport people, drugs, weapons, vehicles, and other contraband across the border.

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bly manufacturing operations. Mexico's six border states are home to 2,600 plants that employ 540,000 workers and account for almost three-quarters of all maquiladora operations.[38] The maquiladora sector, the sector of assembly plants that finishes products for another country, has become one of Mexico's leading foreign exchange earners and an important contributing factor in economically integrating Mexico's border states with the United States. It has succeeded in allowing Mexico's border region to capitalize on its comparative advantage in cheap labor by attracting labor-intensive U.S. manufacturers from across the border. Mexican efforts to develop the maquiladora sector away from the border region have been only moderately successful. Most plants remain clustered in border cities like Matamoros, Nuevo Laredo, Ciudad Juarez, Tijuana, Mexicali, and Reynosa.

The maquiladora industry offers strong evidence that functional economic integration is occurring between the Mexican and U.S. economies. Yet, the tendency for maquiladoras to agglomerate along the U.S.-Mexico border limits their ability to contribute to Mexican national economic development. They exhibit few meaningful forward or backward links with domestic Mexican industry, instead choosing to maintain their sources of supply on the U.S. side of the border.[39] Author Robert B. South reports that fewer than 2 percent of inputs for maquiladora operations come from Mexican sources.[40] Such figures indicate significant economic separation between the border region and the rest of Mexico and close ties between the northern border region and the southwestern United States.

Indeed, author Kevin F. McCarthy reports that "residents along the Mexican side of the border, in the face of their distance from the Federal District, the centralized pattern of decisionmaking in Mexico, and their superior income levels vis-à-vis the rest of the country, have far more reason to favor increased integration with United States border cities than do policy makers in Mexico City who already fear that the close connections between the northern border states and the United States threaten national

integration. Correspondingly, U.S. residents in the borderlands have a vested interest in policies that increase the volume of trade between the two countries and promote the economic welfare of what has historically been among the poorest regions in the United States."[41]

Neoliberal economic reforms undertaken in Mexico since its 1982 debt crisis have had profound implications for U.S.-Mexico relations and for the development of MexAmerica. Most prominent among these reforms was adopting the North American Free Trade Agreement (NAFTA) in 1994.[42] NAFTA liberalized trade by eliminating tariffs and other trade barriers and revised Mexico's nationalist investment regulations. These changes facilitated the dramatic increases in cross-border trade and investment discussed earlier. It is important to note that while the agreement significantly eased restrictions on capital flows, it carefully avoided any discussion of free labor movement between the two countries, a discrepancy that newly elected Mexican President Vicente Fox is addressing during recent calls to open the border.[43]

NAFTA and the program of neoliberal reform of which it is a part present both opportunity and risk to Mexico. While Mexican standards of living are likely to improve in the long run from increased economic integration with the United States, there are real problems in the short and midterms. These problems result from the unequal distribution of benefits and adjustment costs among different regions, economic sectors, industries, social classes, and ethnic groups. Existing socioeconomic disparities and tensions have been exacerbated by Mexico's broad application of neoliberal reform without considering its extraordinary regional diversity.[44] The reforms have created "a new geography of economic and social development in Mexico."[45] With capitalism most developed and integration with the United States most advanced in the northern border region, it is likely that the north will benefit at the expense of other regions, further escalating regional inequalities and tensions.[46]

Mexican Drug Trafficking and U.S. Antidrug Efforts

Increased trade and market liberalization at the border have come with unintended but not entirely unexpected increases in illicit trade as well. Mexico is now the leading foreign source of marijuana and methamphetamine, a major heroin source, and the favored transshipment destination for U.S.-bound cocaine.[47] In 1988, approximately one-fifth of U.S.-bound cocaine was smuggled through Mexico.[48] A decade later this figure had risen to approximately two-thirds of the total.[49] Conservative estimates of Mexico's illicit drug revenues—$30 billion in 1994—suggest that the drug trade is the country's largest foreign exchange earner.[50]

Deep cultural and economic links between the United States and Mexico provide border smugglers with numerous opportunities to move drug shipments into the United States. This fact is apparent in U.S. government documents that suggest that "contributing to enforcement problems are border communities in the U.S. that are linked by common cultural, familial, commercial, and industrial ties or interests to neighboring Mexico."[51] The increasingly favored method of transportation is to conceal drug shipments within commercial traffic, and smuggling organizations have devised sophisticated methods for concealing large volumes of drugs within legitimate cargo shipments. The ever-rising tide of cross-border commercial traffic has clearly facilitated these sorts of operations.

Illicit trade flow is controlled by approximately 150 to 200 organizations, frequently comprised of close-knit family units.[52] Historically, they were based in Mexico's northern border states and used their associations with Mexicans living in the United States to transport illicit goods across the border. Many of these networks are generations old, originating as gun smugglers during the Mexican Revolution. Then they smuggled alcohol into the United States during Prohibition. Originally, by smuggling consumer goods from the United States to circumvent Mexico's high tariff rates, they earned huge profits, and from there,

*T*he implications of pursuing costly, punitive, divisive, and ineffective antidrug operations in MexAmerica are serious indeed: intensified border enforcement efforts antagonize residents and needlessly contribute to an environment of social conflict. . . . [Paradoxically] market-oriented reforms facilitate the erosion of the international border while state prohibition of narcotics and labor strengthens it.

The Border Patrol maintains a highly visible presence throughout Mex-America. While their primary mission is to deter and intercept undocumented migrants, they also play a major role in drug interdiction. (*Inset*) Border Patrol agents searching illegals, near Brownsville, Texas.

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they branched out into smuggling cocaine, marijuana, and heroin.[53]

As their involvement in the cocaine trade deepened, the wealth and sophistication of these organizations increased dramatically. Until the early 1990s, the organizations acted as transportation subcontractors, moving Colombian cocaine from Mexico to U.S. warehouses that Colombian distributors owned. This arrangement gradually evolved as Mexican syndicates became more powerful. Mexican traffickers began to receive a portion of each shipment they moved across the border, giving them access to the lucrative U.S. wholesale market. They quickly developed their own distribution networks using the large numbers of people of Mexican descent living or working in the United States.[54]

The U.S. response to Mexico's growing role in the drug trade is clear. The border region is viewed as "a critical line of defense in efforts to reduce drug availability in the United States."[55] The manpower and resources committed to border enforcement efforts by the Department of Defense, Drug Enforcement Administration, U.S. Customs, and the Immigration and Naturalization Service all increased significantly beginning in 1993.[56] Federal antinarcotics efforts along the southwest border now involve seven departments and more than 11,000 officials, and cost approximately $2 billion a year.[57]

As antinarcotics efforts have intensified, they have become increasingly intertwined with efforts to halt illegal immigration. Moreover, the "influx of illegal migrant labor and the failure of U.S. supply-side approaches to halt the incoming flow of drugs is propelling a fusion between U.S. national security and domestic law enforcement agencies."[58] Military personnel are used in a variety of roles to support border law enforcement efforts, including training, intelligence, operational planning, surveillance, air transportation, radar and imaging missions, cargo inspection, and fence maintenance.[59]

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Agencies involved in border enforcement adopting modern warfighting technologies like night-vision equipment, infrared scanning devices, movement sensors, and helicopters is further evidence of the military's influence along the border.[60] Author Timothy J. Dunn argues that such military-law enforcement cooperation, although subtle, has "a number of disturbing implications for the human and civil rights of residents and immigrants in the border region."[61]

Despite this substantial commitment of resources to increasingly aggressive counternarcotics operations, the price of cocaine in the United States has steadily dropped since the early 1980s while its availability and purity have increased.[62] These are sure signs that interdiction efforts accomplish very little in terms of reducing available supply. Yet, the implications of pursuing costly, punitive, divisive, and ineffective antidrug operations in MexAmerica are serious indeed: intensified border enforcement efforts antagonize residents and needlessly contribute to an environment of social conflict. Such tension arises from the paradoxical nature of the major policies influencing the region. Market-oriented reforms facilitate the erosion of the international border while state prohibition of narcotics and labor strengthens it: "As old barriers between the United States and Mexico are being torn down under NAFTA and the two nations are drawn closer together, new barriers are rapidly being built up to keep them apart."[63]

Intensifying Social Conflict

Author Oscar J. Martinez suggests that social conflict in the border region is inevitable as the United States and Mexico integrate more fully: "As economic and cultural interaction intensifies, so do illicit cross-border activities such as drug trafficking and undocumented migration. Authorities are compelled to confront such illicit activities, but doing so inhibits economic and cultural interaction, negatively impacting the growing number of people economically dependent on trans-border trade. Economically dynamic borderlands . . . may face frictions associated with international trade, smuggling, undocumented migration, heavy cross-border traffic, and international pollution. Thus, while the emergence of interdependent borderlands has diminished traditional strife related to location, it has not eliminated conflict. New disputes have been spawned by the intrinsic contradiction of maintaining border restrictions as the economies and societies of the two sides draw closer together."[64]

While such conflict may be viewed as normal or routine in integrating borderlands generally, the situational context of U.S.-Mexico border dynamics poses additional problems in light of current U.S. immigration and drug interdiction policies; most notably, the emergence of irredentism. For example, measures the U.S. Border Patrol has taken to stem the flow of illegal immigration into the United States have raised human rights concerns in the United States and Mexico. A University of Texas at Houston study reports that more than 300 Latin American immigrants die along the border each year in Texas alone as a result of Operation Rio Grande. Here, Border Patrol agents are stationed 200 yards apart along a 2- to 3-mile section of the border near Brownsville, forcing immigrants farther into the more isolated and dangerous border regions to avoid arrest.[65] The Catholic Church has condemned U.S. border policies for their dismal implications for human rights, and Jose Angel Gurria Trevino, Mexico's Foreign Minister at the time, expressed his concern that the operation "criminalizes migration and migrants, whether they are documented or legal residents and [the policy] even [discriminates] against Americans of Mexican origin."[66]

A similar program, Operation Gatekeeper, was launched in and around San Diego, California. It, too, has been criticized, with specific complaints regarding the deaths of 521 illegal border crossers in the San Diego area since 1994.[67] The operation included a 10-foot-high "iron curtain" that U.S. Army Reserve units erected around San Diego.[68] Graffiti on the steel barricade reads "Welcome to the new Berlin Wall." There are many cases of perceived Border Patrol and other law enforcement abuses along the border that indicate escalated social conflict in the region.[69] While these cases do not comprise a comprehensive list of such abuses, they do illustrate the scope of social tension that aggressive border enforcement efforts foster.

*S*ome groups explicitly promote an irredentist platform of political independence for the southwestern United States to create a new state of Aztlán comprising territories in the southwestern United States and northern Mexico. . . . . Measures the U.S. Border Patrol has taken to stem the flow of illegal immigration into the United States have raised human rights concerns in the United States and Mexico.

Meanwhile, Mexico has placed a national flag the length of a football field on the Mexican side of the El Paso-Ciudad Juarez frontier.[70] In a statement that demonstrates Mexico's irredentist concerns for Mexicans' human rights in the United States, former Mexican President Ernesto Zedillo said the flag "is a reminder that we are an independent nation ready to defend its people wherever they may be."[71] The flag flies on a 26-story pole, six stories higher than any building in El Paso, Texas, and "can be seen miles to the east on Interstate 10 and to the north on U.S. 54."[72] Fox has raised the issue anew with his recent pledge to seek better treatment for Mexican immigrants.[73] Other Mexican aspects of irredentism include Mexico's extending voting rights to second- and third-generation Mexican-Americans, Mexico's call for UN intervention in a case of posse violence in Arizona, and demands for greater law enforcement accountability and less militarization of the border in the United States.[74]

On the U.S. side of the border, irredentist, separatist, and dissident groups increasingly find outlets for expressing their views on the Internet, an interesting example of technological innovation being used for political dissent.[75] Some groups explicitly promote an irredentist platform of political independence for the southwestern United States to create a new state of Aztlán comprising territories in the southwestern United States and northern Mexico. Similar goals are promoted by the Brown Berets and the Movimiento Estudiantil Chicano de Aztlán, organizations prominent on university campuses throughout the southwestern United States and beyond. Many of these organizations are outgrowths of 1960s and 1970s Mexican-American nationalism, the last period of intense social conflict and irredentist expression.[76]

The potential for irredentism as a serious manifestation of intensifying social conflict in MexAmerica is undeniable given the historical and situational contexts of U.S.-Mexico border dynamics, trends toward greater economic and cultural integration, and state immigration and drug interdiction policies. Authors Kathleen Staudt and David Spener suggest that "the growth of transnational communities and diasporas seems to pose a substantial chal-

lenge to state authority."[77] McCarthy notes that "interdependence reduces any one nation's ability to regulate the system of flows or restrict their effects."[78] State attempts to regulate such flows across fixed international boundaries may become bound up in police actions, resulting in a siege mentality among borderland residents.[79] Irredentism offers a forum for political and cultural resistance to state control and is a dynamic process that underscores the fluidity of human interaction across space in contrast to prevailing notions of borders and nation-states as being spatially static.

That irredentist sentiment would arise in the Southwest is not surprising, for it is distinct from any other region in the United States. Indeed, what is different about irredentism in MexAmerica relative to traditional notions of irredentism is the unique interconnectedness of transnationalism and territory. What is often regarded as the periphery of two states is in fact the center of a transnational cultural hearth and the core of a culturally distinct transnational region. In MexAmerica, what is traditionally regarded as the periphery is increasingly the center, and the center is increasingly peripheral. Most of the population is Latino, the only minority group in the United States to comprise the majority population of a large, contiguous, geographic territory. The only other minority group in North America of significant size and population that forms a majority within its own sizable contiguous geographic region is the French-speaking Quebecois of Canada. Indeed, some have written of the Southwest as the United State's "Hispanic Quebec," in reference to Quebec's nearly successful referendum on independence in 1996.[80]

But the national construct of Aztlán is uniquely different from the notion of a Hispanic Quebec. The juxtaposition of identities in MexAmerica, including Anglo, Mexican, and indigenous, has led to a single transnational identity that is potentially at odds with state identities on both sides of the border. MexAmerica is a unique and evolving region that is currently being transformed by powerful cultural, political, and economic processes where the potential for irredentism is clearly present even as the border region continues to integrate more fully. *MR*

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Imperatives for Tomorrow

Lieutenant General Frederic J. Brown, U.S. Army, Retired

Title 10 of the U.S. Code charges the Army to organize, train, and equip a force for land combat. DTLOMS provides a framework for discharging that responsibility. In light of Transformation, information warfare, and 11 September, the Army's charter and the DTLMOS imperatives might need updating. Rick Brown argues that teaming and adapting should be considered for inclusion in Title 10's mission to the Army and that DTLOMS should incorporate time as a seventh imperative.

THE SIX IMPERATIVES—doctrine, training, leader development, organization, materiel, and soldiers (DTLOMS)—have served the Army well. They served as a compass and provided focus during the Army's rebuilding after Vietnam.[1] They also served as a translation vehicle from the general Army mission mandated by Congress in Title 10 of the *U.S. Code* to specific foci for the practical policies and programs of rebuilding.[2] A leader of this first Transformation, General Carl Vuono, Chief of Staff of the Army at the time, commented: "I've always used the six imperatives as a way to describe how the Army internally reshaped itself."[3]

The six imperatives have served as operating guidance for the various U.S. Army Training and Doctrine Command (TRADOC) proponents charged with guiding the actual rebuilding. The imperatives provided the foundation for a concept-based requirements system that guided overall Army development; however, as future forces evolve, the imperatives must also evolve. To these six imperatives should be added a seventh, the element of time. In addition, Title 10, which defines the Army's fundamental responsibilities, directs the Army to organize, train, and equip forces to win the Nation's land wars. These responsibilities should be expanded to include the development of individuals and units highly focused on both teaming and adapting.

Further, it is essential that balance or harmony among the six imperatives be created and sustained in tactical operations—a dynamic balance tailored and readjusted as necessary for executing any mission. This idea is not new. Field Manual (FM) 1.0, *The Army*, prescribes such balance: "The Army, balanced across the six imperatives, can achieve sustained land force dominance throughout the range of military operations and across the spectrum of conflict."[4] Balance means that each imperative is in harmony with the other imperatives. That is, each DTLOMS element supports every other element, and that element is positioned for rapid adaptation to take advantage of opportunity or to reduce adversity.

What should harmony be in the context of full-spectrum operations? Harmony means that the imperatives mutually reinforce each other; that each imperative undergoes near-continuous modification or improvement; and that each imperative adapts more rapidly to changing combat conditions than does the enemy's comparable imperative. Harmony also means that change in one imperative is routinely translated into complementary and reinforcing change in the other imperatives. For example, leader-development changes initiated to prepare for implementation of new doctrine or training are likely to change the training requirements for

new equipment. That change is expected and satisfied routinely.

Such cross-DTLOMS harmony, which reinforces change by extending it horizontally across other imperatives, is necessary but not sufficient to create full balance. That is, there must also be reachdown—backward compatibility with previous DTLOMS imperatives that might be used by legacy or hedge forces or that might have been provided to allies.[5] For example, new radios should talk to old ones. New ammunition should be usable in old weapons. New tactics, techniques, and procedures (TTP) should accommodate prior TTP when possible.

Title 10's current mandate to organize, to train, and to equip forces certainly generates capable landpower force, and organizing, training, and equipping are all traditional force-management requirements; however, the functions of organizing, training, and equipping are insufficient to generate the kind of forces required today.

Reachdown sustains an umbilical cord to allied or friendly forces joining in revolving coalitions that might be accustomed to prior Army DTLOMS. Reachdown creates longitudinal harmony between older and newer manifestations of DTLOMS imperatives that complements cross-DTLOMS harmony. In sum, DTLOMS should be configured to support harmony on two axes: harmony among the DTLOMS imperatives to reinforce continuing advances and harmony with forces accustomed to earlier DTLOMS versions to retain continuity of operations.

Balance increases in relative importance in the fighting concepts of recent writings, particularly in *Conceptual Foundations of a Transformed US Army* and in *Concept Paper for the Objective Force.*[6] Note the issue of balance: "At base, the challenges confronting the Army today have less to do with materiel than with organization, doctrine, education, and training. As in the past, victory on future battlefields will not result from technology alone, but rather from the creativity with which it is employed."[7]

The objective then is a continuously evolving harmony of imperatives, which is challenging to sustain within landpower itself much less with other services in joint operations. Creating and sustaining synergy with armies of other nations will be even more difficult. The role of legacy forces seems likely to be to maintain backward compatibility to less well-supported allies across the six imperatives, which is somewhat similar to having the responsibility to support hedge forces.[8] The goal is not just harmony to create a whole much greater than the sum of the parts, it is also the sustainment of a compatibility that permits basic interoperability across past generations of DTLOMS. Shared standing operations procedures and standardization agreements can help, but a broader effort extending across each imperative is needed.

Growing Challenge

The challenge grows as flexible and modular fighting organizations become common, as is foreseen in current thought about the nature of the Objective Force. General John Abrams expresses the vision well: "Enabled with information, Army units take on an expeditionary quality. This expeditionary force will have the capability to assume asymmetric advantage in any mission assigned. These capabilities will allow adaptive force packaging to suit mission requirements as prioritized by the Combatant Commander. Modular mission packages will be created to provide Combatant Commanders with forces required for theater operations based upon speed for deployment and entry, specific capabilities required by environmental or threat characteristics, or endurance for sustained operations. Force readiness will be a function of the ability to rapidly tailor the force to meet full spectrum mission requirements. The intent is to make Army forces available on a timely basis at the point of decision without pooling critical force multipliers at senior tactical levels until needed."[9]

Harmonious balance of DTLOMS is a precondition to adaptive force packaging and permits the rapid tailoring of the force. Without thoughtful, sustained balance of DTLOMS across the Active Component (AC), Reserve Component (RC), and civilian force, just-in-time organizing en route to combat can create unacceptable national risk. The balance must be dynamic, as recognized in FM 1.0: "These imperatives are interconnected, and constantly evolving; this cycle is a continuous process. In every period of change we must carefully balance the Army imperatives."[10]

Synchronization of the six imperatives is assumed in the Army's implementation of Title 10, which expresses fundamental Army responsibilities for providing forces ready to fight in joint and combined operations, often on little notice. TRADOC was created to ensure synchronization as the Army rebuilt after Vietnam, but are current Army force-management mandates, which Title 10 implies, adequate for the likely future? Is enough expected of Army force development, based on current interpretations of Title 10 requirements?

Brigadier General Creighton Abrams receiving his stars at a Pentagon ceremony, 17 February 1956. The future commander in Vietnam and Army Chief of Staff had commanded the 4th Armored Division tank battalion that punched through German lines to relieve the 101st Airborne at Bastogne during World War II.

A current leader imperative challenge is to take advantage of the diverse experiential lore resident in today's young leaders. Clearly there is an abiding case for according increased authority and responsibility to these highly experienced young leaders. The situation is analogous to the intensive World War II combat experience that created young but competent leaders.

The congressional charge is broad. Section 3062 of Title 10 states, "It is the intent of Congress to provide an Army that is capable, in conjunction with the other armed forces, of

☐ preserving the peace and security, and providing for the defense of the United States, the Territories, Commonwealths, and possessions, and any areas occupied by the United States;

☐ supporting the national policies;

☐ implementing the national objectives; and

☐ overcoming any nations responsible for aggressive acts that imperil the peace and security of the United States.

"In general, the Army, within the Department of the Army, includes land combat and service forces and such aviation and water transport as may be organic therein. It shall be organized, trained and equipped primarily for prompt and sustained combat incident to operations on land. It is responsible for the preparation of land forces necessary for the effective prosecution of war, except as otherwise assigned and, in accordance with integrated mobilization plans, for the expansion of the peacetime components of the Army to meet the needs of war."[11]

More should be expected. Forces provided to operating commanders in chief of unified commands need expanded capabilities. Title 10's current mandate to organize, to train, and to equip forces certainly generates capable landpower force, and organizing, training, and equipping are all traditional force-management requirements; however, the functions of organizing, training, and equipping are insufficient to generate the kind of forces required today. Additional Title 10 implementation-management categories seem necessary to enable consistent, reliable harmonization of the six DTLOMS imperatives, particularly when the forces will operate routinely in joint and combined environments. Additional Title 10 management responsibilities should include developing enhanced capabilities for teaming and

adapting, both of which would be regarded with equal importance to organizing, training, and equipping. The new mandate should be to prepare all Army soldiers and units to operate as high-performing teams not only prepared to handle uncertain change but to seek, welcome, and positively thrive on change, more rapidly than any potential opponent.

Teaming. If unit capabilities are uncoordinated, it is simply insufficient to have harmony across

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Teaming . . . could be enhanced by increasing the number of liaison officers embedded in organizations; by using common standardization agreements; or by creating combined and joint modular mission packages—"plug-ins/plug-outs"— that routinely team and train with Army units.

DTLOMS. If leaders fail to act to common purpose, the best "new" item, however capable, will not produce results in the fight. The product must be teamed with other capabilities; for example, leaders at all echelons must realize the necessity of developing effective team leadership through shared vision, trust, competence, and confidence—despite incessant personnel turbulence. Army management guidance should mandate that the Army determine and provide to operating forces DTLOMS characteristics that enable those forces to rapidly, yet routinely, build and regenerate high-performing teams to execute Army, joint, or combined operations.

Because the Army always teams to fight and because team composition will be highly flexible to dominate local mission, enemy, terrain and weather, troops and support available, time available, and civil considerations (METT-TC), teaming must be specifically recognized and supported. Teaming, which often takes place at the last minute because of the just-in-time nature of modular force composition, could be enhanced by increasing the number of liaison officers embedded in organizations; by using common standardization agreements; or by creating combined and joint modular mission packages— "plug-ins/plug-outs"—that routinely team and train with Army units.

An immediate objective could be to shape DTLOMS to support teams. This objective is not impossible and is already done exceedingly well between AC and RC units. Such teaming has made hybrid AC, Army National Guard (ARNG), and U.S. Army Reserve (USAR) organizations routinely successful. Operations in Panama saw remarkable teaming across light infantry, mounted, airborne, and

Special Forces units. Different combinations have evolved in Afghanistan. This is quite an achievement! Which of these new practices should be acknowledged and provided resources through codification in force-management practices drawn from Title 10 requirements?

Adapting. Army forces routinely adapt to change, brought about by battlefield success or failure, faster than can any enemy. The Title 10 implied task would be to create infrastructure to magnify the existing American proclivity to innovate—always finding the better way. Army imperatives would be designed not just to permit but, rather, to accelerate institutionalization of innovation across DTLOMS. Institutionalizing innovation would be done initially for Army and joint forces then, eventually, for coalition partners, however behind they might be.

An example of programs supporting adapting could be local command "good idea" funds—funds and the authority to spend them—to establish locally generated, improved practices. Shared task, condition, and standard, and shared doctrine and TTP executed by prepared leaders, would ensure that startling local adaptations would fit a broader framework of incessant unit innovation across landpower. The cross-organizational fit of continuous innovation would be supported by emerging Army Knowledge Management (AKM) practices such as the sharing of ideas online characteristic of companycommand.com or platoonleader.org. Army Knowledge Online (AKO) offers powerful teaming opportunities. Hundreds if not thousands of these communities of practice seem likely as the Worldwide Web expands.

The practical effect of Title 10's insistence on adaptation would be extraordinary emphasis on developing modular cross-DTLOMS plug-ins/plug-outs combat, combat support, and combat service support capabilities. Quality soldiers and the shared rigor of task, condition, and standard permit high unit proficiency, despite flexible individual soldier assignment policies. Materiel plug-ins/plug-outs lead to a family of fighting vehicles in the Future Combat System (FCS) of the Objective Force, a project with a 30-year development period.[12] Unit cohesion remains vitally important to unit performance.

Assessment must be built into all activities. Accelerating spiral development—a quicker decision loop—encourages local innovation and could lead potentially to a disparate, fragmented unity of purpose across the Army. Is this a risk? Yes. But assessment to ensure necessary uniformity now can be far more comprehensive in forcing commonality to compensate for encouraged local variations stimulated by encouraged adaptation.

The unifying presence of combat training center (CTC) rotations is a powerful assessment cross-

Members of the 432d Civil Affairs Battalion, Army Reserves, and 96th Civil Affairs Battalion in Tuzla, Bosnia, 30 March 1996.

Plug-in capability is not simply a BOS's reachback capability; it is plug-in of joint, combined, and civilian resources, and increasingly since 11 September 2001, it is interagency. Organizations are designed to facilitate adaptation, often on short notice.

leveler—a "hamburger helper" extension of self-awareness sought recently by the Army Training and Leader Development Panel (ATLDP). The future presages extensive communities of practice that share information and knowledge to enhance awareness—generating a far higher level of sensitivity to external events that will be shared within leader teams.[13] The explosive development of companycommand.com demonstrates the remarkable unifying potential of AKM in ensuring that extraordinary local adaptation does not erode the desirable balanced harmony of DTLOMS across the Army.

Doctrine and TTP

How might existing DTLOMS change if influenced by the guiding hand of enlarged Title 10 direction? Link doctrine to TTP derived from a method acquired in shared experiential learning AKM provides. Knowledge-mining of strong communities of practice such as companycommander.com might provide a way to speed doctrine development.[14] A stimulating sharing of current and emergent practices between doctrine writers and practicing leaders could accelerate the creation and institutionalization of new doctrine and TTP. Members of an appropriate community of practice stationed at a CTC could observe and confirm unit doc-

trine and TTP adaptation during a CTC rotation and spread the gospel of new tactical practices. Doing so would certainly serve to encourage innovative adaptation and sharing of evolving best practices and good ideas.

Such practices would co-opt more diverse leader development in developing doctrine and would lead to more rapid understanding and application of emerging doctrine and TTP. Also, more unit leaders would participate in doctrinal development, and because more units leaders will have been co-opted into doctrine and TTP development, more leaders would quickly understand, accept, and execute new doctrine and TTP. Emerging AKM, implemented through AKO, seems to provide emerging capabilities to reshape and inform with respect to doctrine and TTP. Just as companycommand.com provides boilerplate orders and reporting formats, TTP could be similarly disseminated. The ubiquitous nature of doctrine and TTP should ensure that advances are shared across all imperatives.

Link doctrine and TTP formulation to military attachés schooled to seek out local national military adaptations. Steal good ideas globally, then scrub them through online communities of practice linked to various forms of simulation. TRADOC proponents could overwatch informal classified or

unclassified online "trials" in chat rooms with closely controlled access. Use the power of AKO to permit much more detailed acquisition and analysis of foreign tactical practices.

TTP could be developed for various mixes of high/low DTLOMS or cross-cultural assimilation. These should be provided routinely in legacy forces to take advantage of their built-in bridge to less-DTLOMS-balanced armies. Reachback from deployed forces is necessary to readiness, but it is not enough. There is an abiding need to reach doctrine and TTP down to militarily less advanced coalition partners—doctrine and TTP tailored for the particular user.

In sum, the key to balanced harmony in doctrine and TTP development adjusting to increased emphasis on teaming and adapting is not just a fountain of U.S. innovation, it is also an explosive dissemination of doctrine and TTP plus "a way" to very high performing leader teams who know their adaptation to advantage U.S. innovation will be rewarded. This is both desirable and feasible in One Army in months not years.

Training

Identified by the recent ATLDP, most training changes required to adjust to increased focus on teaming and adapting are underway. There is clear understanding of the purpose and need to institutionalize self-awareness and adaptation. The Army is making the necessary policy and program decisions. A second training revolution is occurring. New training practices are receiving resources although, unfortunately, at a slow rate. Institutional leader professional development is facing significant beneficial improvement. The CTCs are being assimilated and modernized. AKM opens new opportunities for distributed individual, team, and unit learning.

As always, more can be done. First, the Army should establish several common learning practices. Learning means neither training nor education but embraces both. The natural breadth of learning ensures increased understanding across multiple imperatives. As more soldiers become leaders, down to and including squad, crew, or section, the focus on learning, not just training, becomes more important. By tradition, soldiers learn as individuals, but now, with greater attention to preparing teams of leaders, soldiers should learn in horizontal and vertical teams. New learning practices might be required.

All unit learning is experiential, requiring task performance to standard. Unexpected change that requires team adaptability for success is routine.[15] Learning occurs in basic skills, knowledge, and attributes (SKA) plus actual fighting-team SKA. These experiences result in near-continuous learning of critical tasks because of the need to adapt to ever-present change. Learning also becomes near-continuous because of the inevitable turnover of team membership caused by personnel turbulence or attrition.

Advanced training is intensive, totally team-based, and linked to new doctrine and TTP. Training becomes absolutely execution-based, as does current practice in multiechelon, multigrade leader training during Gauntlet exercises at the U.S. Army Armor School. This is the future of institutional training, literally learning by doing.

Training combinations of plays or combinations of battlefield operating system (BOS) integrated tasks, in packages of virtual, constructive, or live simulations, are designed deliberately to draw on balanced DTLOMS.[16] These plays become appropriate TTP for unit-of-action and below and are trained as audibles consistent with execution-based decisionmaking described in FM 6.0, *Command and Control*.[17] Examples are joint suppression of enemy air defense or hasty breach. Then, new capabilities in macro/leader team packages as part of new equipment training should be introduced. All fighting teams exist only in cross-reinforced joint or combined organizations. Unit training must occur in such organizations. The critical path, which should be a focal point of learning research and development (R&D), is rapid team learning to master tasks, conditions, and standards of a niche capability so as to dominate the local situation. In sum, TTP should be designed to be easily learned by teams of leaders.

Learning R&D should also address improved evaluation of learning. All learning, both training and education and individual and team, is assessed routinely at all echelons. Demonstrated proficiency in actual combat task organizations or teams becomes routine. When the team cannot be assembled, distributed demonstrated actual team proficiency is permitted.

Leader

Support of the leader imperative to increase adaptability and teaming is obvious. Solid leaders are the lifeblood of tactical success, and today's leaders are profoundly adaptive. If they were not, they would not have survived the personnel attrition of the past decade or the incredible diversity of assignment experiences in the complex force-projection operations of a heavily committed Army. Ask 10 different leaders, E4 or above where they have served during the past 5 years, and the geographical and mission diversity of service they describe will be remarkable. The Balkans operations have become old hat; increased leader learning occurs routinely. What

a "virtuous circle" of leader experience and competence! Repeated CTC tours create a bank of midintensity combat lore in young leaders. Repetitive stability and support operations (SASO) develop complementary background lore in complex civil-military, joint, and combined operations.

A current leader imperative challenge is to take advantage of the diverse experiential lore resident in today's young leaders. Clearly there is an abiding case for according increased authority and responsibility to these highly experienced young leaders. The situation is analogous to the intensive World War II combat experience that created young but competent leaders. Subsequently, those leaders led the Army for decades. Another example is the acknowledged competence of today's senior leaders, who honed their very considerable skills as platoon leaders or company commanders in Vietnam.

Justifiable pride of accomplishment of today's young, adaptive leaders has been gained from clear operational successes in spite of the increased complexity of the operational environment.[18] How should the Army further hone and exploit this bank of valuable experience?

The School of Command Preparation (SCP) at Fort Leavenworth has new, highly effective learning tools that are in the process of being adapted to online learning. "Think Like a Commander" and "Duffers Drift" stimulate effective individual and team learning. They capitalize on student experience to create powerful learning environments that encourage leaders how to think, not what to think. Such techniques can be extended throughout the institutional leader-development programs.

In addition to the innovations at SCP, and as a result of vast improvements in digital communications, individual leaders can and should work together to become proficient leader teams, combining expertise in joint, multicultural, and multinational organizations. Examples abound from the Afghanistan campaign. Leaders can also perform routinely in teams because of diversity of SKAs acquired from serving in proconsul positions. Battalion and company commanders and staff officers serving in SASO acknowledge the vital interactions of political, military, social, and economic forces. They must draw on teamed experts as well as serve competently in vertical chains of coordination under multinational force commanders or civilians. If commanders and staff officers cannot team, they will be ineffective leaders. The challenge is how to help them. How can we teach them to develop team leadership? How can we teach them to have shared vision, trust, competence, and confidence? This is clearly a case for the human factors of R&D supporting team development in the leader imperative.

US Army

The new soldier learns adapting and teaming from the moment he or she comes onto active duty, whether it be basic training or a comparable initial Army experience. What is vitally important is that soldiers learn in the context or environment of selfless service to the nation. They acquire the values, attitudes, and skills associated with service beyond self.

All leader development in preparation for Objective Force operations requires additional cross-battlefield operating system familiarity so future tactical leaders can more easily combine or recombine at every echelon into new teams, continuously evolving before the enemy can. To sustain balanced harmony, each leader will need to understand the enduring application of the six imperatives.

Yet, an even deeper understanding will be required. Leaders clearly should understand the interrelationships of the imperatives as the imperatives are applied at their level of responsibility. Leaders must also understand the implications of the interrelationships as they interact one or two echelons

higher. The challenge is to possess the SKAs and motivation to adapt or adjust the balance within the six imperatives to retain battlespace dominance. Adapting or adjusting interrelationships with higher echelons in accordance with higher intent is the essence of a knowledge-based force. Routinely, leaders must be prepared to assume responsibilities one or two levels higher. The tools for doing so are becom-

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ing increasingly available. AKM practices enable increasingly effective communities of practice that can be encouraged to support teams of leaders, either vertically or horizontally. Company-command.com provides useful knowledge well above and also below company, battery, or troop echelons. A thoughtful command team such as a squad-platoon-company leader team serving in Kosovo can readily acquire valuable how-to tips from company-command.com. This is only the tip of the iceberg.[19]

There is not much to be done to sensitize the leader imperative to adapting and to teaming. This imperative is there now.

Organization

Adaptive force packaging and routine preparation of modular mission packages—plug-ins/plug-outs—provide a doctrine and TTP prescription of design requirements for organizations to be highly adaptive. What was an exceptional ad hoc-niche force-design feature years ago has now become a routine expectation.[20]

Plug-in capability is not simply a BOS's reachback capability; it is plug-in of joint, combined, and civilian resources, and increasingly since 11 September 2001, it is interagency. Organizations are designed to facilitate adaptation, often on short notice. Common characteristics, which will ensure organizational adaptability, are coming. Characteristics might include, for example, maximum commonality of support functions and organizational design to facilitate easy plug-in of any BOS capability.

Organizational design can also be configured to support teaming. Examples are increased authority and organizational flexibility to team with industry beyond typical current agreements to use commercial equipment or to establish dual use, such as use of the Civil Reserve Air Fleet. Organizations could be authorized to establish long-term teaming with industry. Why not teaming with AOL-Time-Warner, Citicorp, Bechtel, American Airlines, or Wal-Mart—depending on METT-TC—to form new civil-military combinations? What about teaming with certain foreign organizations or multinational corporations to ensure support when deployed? Precedents abound in contract support of equipment or of installation support. Increased civil-military association is essential in urban warfare and, more recently, in homeland security. Associations such as these could be sustained out of the AC or RC.

A broad definition of the post-11 September national security team, which includes dominant international corporations, might presage variable civil-military organizations that are highly flexible in response to the unexpected. The USAR might be the best organizational structure for generating national expertise to be made available as plug-ins. The Army can create organizational frameworks that it cannot sustain in its normal force structure but that could be fleshed out and rapidly teamed with private-sector capability to provide world-class capability when required. This is exactly what was done as AT&T migrated to the Army Signal Corps during World War II. Where military organizations and corporations have teamed to share new and different institutional responsibilities, it should be mandated that these new patterns of relationships will be subject to "sunshine laws" that would subject such relationships to congressional review and rechartering. There are many paths available by which to make organization more adaptive and more supportive of teaming.

Materiel

The ability to adapt materiel rapidly to the advantage of battlefield opportunities has been sought for years. An example of adapting materiel to opportunity has been the future close combat vehicle (FCCV) development effort. The FCCV "is really a family of vehicles with very specific characteristics. The goal is to employ a single common chassis that meets the needs of the AirLand 2000 force, both light and heavy. This single FCCV chassis will be fully integrated with the principles of Vetronics and will be capable of performing various functions through the addition of various mixes of capability modules. The FCCV can be viewed as nothing more than a mobile, variable protected space, which can be left as is or fitted out-tailored—with one or more capability modules which have been optimized for specific battlefield functions. . . . In the final out-

come, the design and construction of all modular capabilities must permit the close combat force the inherent flexibility to tailor itself at the subunit level—a level as low as is technically, economically and practically feasible."[21]

The vision of 1983, renewed with the equipping of the interim brigade combat team, continues to fruition in the Future Combat System (FCS). "Mobile, variable protected space" evolved through the M1A2 Abrams with design thermal optics in the Commander's Independent Thermal Viewer (CITV) to a hoped-for drop in laser or other killing mechanisms selectively replacing the CITV thermal viewer. Also, a plate was placed in the roof of the M1A1 to permit selective retrofit of advanced technologies from the M1A2. The FCS will supplant all of this as the logical product of decades of materiel development. Adaptation through continuing product improvement is old hat to the materiel community.

There are, however, vital new materiel capabilities emerging as the global Internet and increasingly rugged distributed communications and data processing systems provide opportunities to create families of interlocking global communities of practice within AKM "e-mail for life." Access to globally linked Internet service providers that connect wireless wide-band personal digital assistants— the low end of the U.S. Department of Defense network-centric warfare capability—will be available for combat, force projection, and peacetime preparations. Automatic language translation will come, as will individually tailored leader portals configured for cross-unit, joint, and combined leader-team building. The foregoing capabilities comprise a knowledge revolution, not just an information revolution, and the knowledge revolution is the surest source and sustainer of future harmony across all six imperatives.

Soldier

The last of the six imperatives is arguably the most important—the provision for competent, confident, disciplined young soldiers proud to serve their country. Each of the other imperatives defers to the soldier as the ultimate arbiter of that imperative's adequacy.

The new soldier learns adapting and teaming from the moment he or she comes onto active duty, whether it be basic training or a comparable initial Army experience. What is vitally important is that soldiers learn in the context or environment of selfless service to the Nation. They acquire the values, attitudes, and skills associated with service beyond self. They must demonstrate disciplined performance to standard. Instilling, practicing, and enlarging this value in the solder must characterize the future soldier imperative.

"Soldierization" of the new soldier must be even better than it is today. Regreening on the values, attributes, skills, and actions of more responsible positions during professional development in an institutional setting is becoming less frequent. Young soldiers increasingly face responsibilities in unexpected situations, often under great stress. They have, in fact, become national strategic assets placed in complex situations that often require personal actions of near-instantaneous tactical, operational, and strategic importance. They must have a solid foundation in duty, honor, and selfless service to the Nation. Therein lies the challenge—increased early soldierization to prepare young volunteers for careers of professional service.

Time

The conceptualization and practical realization across the Army of the interrelated nature of the six imperatives of DTLOMS has been a dominant force—perhaps the dominant one—in creating the U.S. Army as it exists today. As with most major advances examined after the fact, the six imperatives appear obvious and intuitive. They are not. Before the creation of TRADOC, there was neither the conceptualization nor an organization that could foster practical management tools to ensure that all organizations had a place within the Army's organizational responsibilities and authorities, particularly organizations that fielded capabilities matching doctrine that defined how the Army intended to fight and win.

But, are these six imperatives sufficient today? Perhaps a seventh imperative is needed—time. While vitally important resources of money and manpower expended routinely across all Army endeavors are justified annually within the executive and legislative branches, time is not. Yet, most unit leaders identify time as the most critical resource in accomplishing their missions. Worry about time is not limited to the chain of command. In recent surveys conducted by the ATLDP, concern about migration of additional responsibilities to units without allocation or acknowledgment of the time required to accomplish assigned tasks adequately was a significant issue to officers and noncommissioned officers (NCOs).[22]

Genuinely new and powerful capabilities are being fielded to units, and new and important responsibilities are being assigned to soldiers. The information revolution provides marvelous opportunities for distributed learning. The computer at the kitchen table enables a soldier to complete a mandatory professional-development course no longer taught in residence by a TRADOC striving to conserve resources. Degree completion by distributed learning during unit assignment induces a young person to

enlist. A professional-development course prepares a young leader for possible deployment. All are genuinely good ideas now enabled through distributed learning. With AKO, the opportunities for distributed learning increase exponentially. But all of these demands increase soldier time. Who allocates this time?

Many senior headquarters feel free to give unit time away. How much is too much? Who determines this? How? Who protects the time available

> *One allocation plan might allocate 30 percent of the time available to day-to-day administration, 30 percent to professional development (individual and team, officer and NCO), and 40 percent to unit mission training. Whatever the allocation percentages, commanders would be expected to allocate enough time to permit subordinate leaders to further allocate time as they deemed appropriate.*

to the company, battery, troop commander? How? Protecting time without further restricting the commander's freedom to address mission accomplishment is a terribly difficult issue. How does the Army do this? Faced with a decade of resource anemia and fewer personnel, time has been the only resource left, in theory, to the unit commander. Is time also to be regulated?

Instinct strongly resists regulating time within the small unit. First, the local commander, who knows the unit's needs best, is deprived of the necessary flexibility to exercise responsibilities. When presented detailed guidance for the use of time in their units, commanders are, in effect, receiving ultimate guidance about how to train their units to perform their missions.

There is also a practical problem. How does one mandate the use of time across an organization as complex as the Army? This might be thought through from strategic, operational, and tactical perspectives. Several current policies that address the allocation of time at various echelons, plus ways they might be expanded, follow.

Strategic perspective. At the strategic level, the Army could—

▫ Develop routine time-use guidance for units, such as percentage of duty time to be set aside for NCO and officer individual and leader-team professional development.

▫ Issue general guidance on the use of time. The Army has had general rules for the use of time in the past. For example, the traditional military

decisionmaking process (MDMP) recommends allocating two-thirds of planning time to subordinate organizations. Another example is the Army's recent decision to limit the time that units were permitted to prepare for deployment to the Balkans.

▫ Schedule 4-day weekends. Turn 3-day weekends, created by national holidays on Mondays, into 4-day weekends by encouraging training holidays on the preceding Friday. Expand this practice.

▫ Create greater predictability of requirements. Other services have recognized the extraordinary import of predictability in requirements for time in units. Aside from other considerations, predictability might be compelling justification for going to a deployment cycle as used by the Air Force or the sea services—one unit deployed, a second preparing to deploy, a third recovering from deployment—red, white, blue cycles. Rather than having two units in support of one unit preparing to deploy, as is currently the case, there might be a requirement for three additional units to support one unit preparing to deploy so the one unit can focus completely on individual soldier and leader development—a learning cycle advantaging AKM's great potential.

▫ Establish officer time similar to NCO time that NCOs use to train soldiers on individual tasks.[23] Conduct vertical and horizontal team-building exercises—Army, joint, and combined.

Operational perspective. At the operational level, the Army could—

▫ Slow operating tempo (OPTEMPO). Several years ago III Corps prohibited training on weekends—an important senior command initiative to slow OPTEMPO. Although this policy did not specify a time allocation, it implied the use of percentages to allocate time to unit readiness, to self-development, and to family time. One allocation plan might allocate 30 percent of the time available to day-to-day administration, 30 percent to professional development (individual and team, officer and NCO), and 40 percent to unit mission training. Whatever the allocation percentages, commanders would be expected to allocate enough time to permit subordinate leaders to further allocate time as they deemed appropriate. The allocation issue is not time-efficiency, but rather, time-effectiveness as seen by platoon leaders and company commanders; it is a small unit decision. Allocations might vary from one operational command to another for mission reasons; nevertheless, the discipline of having to formally address what the percentages should be brings time allocation forward as a command issue.

▫ Coordinate block leave at training installations with local school systems' vacation time. The Army's centralized installation management could support national or state programs to allow local in-

stallation commanders to create incentives for local school boards to tailor school vacations to support unit schedules.

Tactical perspective. At the tactical level, the Army could reward commanders for effective use of time as measured by agreed-on standards. The effectiveness with which a period of time is used is, in part, measured against how that time might be used differently. In economics, this comparison is called opportunity cost. What might be the cost of using that time differently? What is foregone by using the time for one purpose versus another? So, effectiveness is in the eye of the beholder. The commander has one standard of measurement—unit readiness. The average family member has another—family unity. The ultimate arbiter must be the chain of command with its many responsibilities and authorities. The Army's strategic guidance on time allocation should provide guidance on what are acceptable and unacceptable costs. However, rules that govern the use of time must not preempt the chain of command's flexibility.

Efficiency in the use of time is profoundly affected by instability of personnel. The effects of turbulence and turnover of individuals and, indirectly, of teams simply have to be acknowledged in unit administration. The time required to regain team proficiency and cohesion after personnel instability must be acknowledged, or time efficiencies will evaporate. Furthermore, leader time, already important and normally quite fragmented, is about to become vastly more conflicted as a result of distributed learning.

Looking Forward

The six imperatives look as applicable for the future as they have been for the past quarter century. The practices associated with each imperative should ensure that the six imperatives harmonize. Harmony means that the imperatives mutually reinforce one another, that each imperative undergoes near-continuous modification or improvement, and that each imperative adapts more rapidly to changing combat conditions than does any enemies' comparable imperatives. Also, harmony means that change in one imperative is routinely translated into complementary and reinforcing change in the other imperatives.

As the Army looks forward to a leader-dominant force, existing almost as one giant brain of hundreds if not thousands of communities of practice linked by AKO, the current characterization of DTLOMS is incomplete. The executive and legislative branches should set the Title 10 bar higher. Teaming and adapting capabilities should be added to organizing, training, and equipping as major and abiding institutional responsibilities of the U.S. Army.

Time, already the scarcest commodity in units, is about to become scarcer. Therefore, time should become a seventh DTLOMS imperative so that it receives the necessary command attention and balance with the other six imperatives. DTLOMS-T? *MR*

NOTES

1. U.S. Army Field Manual (FM) 1.0, *The Army* (Washington, DC: U.S. Government Printing Office (GPO), 14 June 2001), chapter 1, 27fn. Thoughtful leaders are adding or replacing areas of emphasis in DTLOMS to reflect current challenges. S becomes P for Personnel, reflecting the clear need for quality Army civilian support. F, for Facilities, is added to highlight the importance of facilities for force projection. The revised imperatives become DTLOMPF. I demur, for the additions are essentially management-oriented. DTLOMS clearly focuses on combat effectiveness in the TOE unit—the cutting edge of the Army. I too shall propose an addition, but that addition is clearly directed at improved combat readiness in the TOE unit. I believe that centrality of focus on small units should be retained.
2. *U.S. Code,* Title 10, online at <uscode.house-gov/title_10.htm>.
3. Carl Vuono, personal interview, 6 November 1996.
4. FM 1.0, chapter 3, 31.
5. *See* Frederic J. Brown, "Quality Over Quantity—and Hedges," *Military Review* (July-August 2002).
6. Huba Wass de Czege and Richard Sinnreich, "Conceptual Foundations of a Transformed US Army," no. 40, Land Warfare Paper, Institute of Land Warfare, March 2002, 43; Headquarters, U.S. Department of the Army, *Concept for the Objective Force* (Washington, DC: GPO, October 2001), 20.
7. Wass de Czege and Sinnreich, 2.
8. For additional discussion of legacy and hedge forces, *see* Brown, "Transformation under Attack," *Military Review* (May-June 2002).
10. FM 1.0, chapter 3, 31.

11. Association of the U.S. Army, *2001 Profile of the US Army*, 7.
12. U.S. Army Armor Center, "FCCV Family" (Fort Knox, KY: 10 May 1983) to IBDE LAV Family of the late 1990s to FCS 2003.
13. Richard McDermott, "Learning Across Teams: The Role of Communities of Practice in Team Organizations," *Knowledge Management Review* (May-June 1999).
14. For an excellent discussion of the importance of communities of practice, *see* Major Peter Kilner, "Transforming Army Learning Thropugh Communities of Practice" *Military Review* (May-June 2002), 21-27.
15. Brown, "Preparation of Leaders," *IDA D2382* (January 2000), IV-1fn.
16. Some packages might be unbalanced to instruct experientially the need to seek balance.
17. FM 6-0, *Command and Control* (Washington, DC: GPO, TBP).
18. Successes include the Balkans, Afghanistan, and Partnership for Peace. There is simply no comparison between the situation in the Balkans today and the situation perceived by the world from 1993 to 1995.
19. Nested leader team learning at the interim brigade combat team is a superb example of the potential for vertical leader team learning.
20. Brown, *Army in Transition II* (Washington, DC: Brassey's, Inc., 1993), 18fn.
21. U.S. Army Armor Center, 8.
22. Discussion by Stan Halpin of the Army Research Institute, Fort Leavenworth, KS, 03 April 2002.
23. There were comparable time allocations in units before World War II, but the Army was far less committed than it is today.

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MRInsights

Deception–*Magic!*

John Davis

German bombers rumble relentlessly across the night sky of North Africa following a radio beam directed from German-occupied Libya toward the British port of Alexandria, Egypt. The flight commander notes an anomaly. The beam directs him forward, but he can see the lights of Alexandria to his left. The beam is known to be correct, but below him are city lights. Not only can he see the few inevitable lights in violation of blackout, he can easily see ships' lights in the harbor. He turns toward the lights and bombs . . . nothing.

In Africa during World War II, German bombers were led astray by an English deception plan that included mimicking Alexandria harbor. Creating the illusion of the actual city, lit by false house and ship lights, British officer Jasper Maskelyne, a professional magician, deceived the deadly German bombers into dropping their bombs 8 miles from Alexandria.

Deception on the battlefield is a force multiplier whose target is the adversary's mind as much as his technology. Deception can be countered by understanding the rules that govern suggestion or, better said, magic.

Successful deception events are occurring worldwide. Despite being monitored by sophisticated surveillance techniques and technology, India exploded a nuclear device under the world's nose. In Kosovo, the Serbs used fake tanks to drain away allied air sorties. Artillery that the Vietnamese "did not have" at Dien Bien Phu appeared as if by magic after having been secretly delivered from the Korean peninsula. In each case, the adversary was well and truly deceived.

Appearance, Belief, Enticement

The great Chinese military philosopher Sun Tzu wrote, "All war is deception. Hence, when able to attack, we must seem unable. . . . When

we are near, we must make the enemy believe that we are far way. [We must] hold out baits to entice the enemy."[1] Almost every U.S. Army officer has read Sun Tzu's words. Yet, the U.S. military is little prepared for deception operations, which comprise a significant component of information operations. Why?

U.S. analysts tend to misinterpret Sun Tzu's text. Americans are a pragmatic, formulaic, and technology-trusting people. Sun Tzu uses verbs that refer to the mind, emphasizing appearance, belief, and enticement. How something seems or appears, what is believed, and enticement are activities discerned by the mind, not by technology. Deception in war deceives first the mind, then the eye. Few U.S. military analysts would dispute this, but fewer still offer assessments as if they believe it.

Basic military intelligence apparatus is sensory. We use platforms to see and hear the enemy. We base assessments on what is perceived as cold, rational fact. Appearance, belief, and enticement are mental, not sensory words. The U.S. military interprets enemy activities based on what can be seen, heard, and touched.

When a weaker country confronts a great power, the weaker knows it must employ deception to prevail. The U.S. Army's lack of ability in recognizing deception makes it not only vulnerable but also weaker because deception is a force multiplier.

The principles of magic, which all of us—especially children—enjoy, include the following:
- Disappearance.
- Appearance.
- Transposition of objects.
- Physical change in an object.
- Apparent defiance of natural law.
- Invisible sources of motion.
- Mental phenomena.

These principles also govern deception. We all know the old adage that the hand is quicker than the eye. The magician seems to deceive the

eye, but this is not true. The hand is not quicker than the eye. The magician actually beguiles the eye. In war, an opponent tries to beguile his adversary's perception. What appears factual might actually be an artful creation with which to convince the adversary that it is real. Properly understood, these principles can be used to assess the battlefield, to assess intelligence reports, and to defeat deception attempts.

Deceiving the Mind

Before the enemy employs deception, he must analyze the situation, because to defeat his enemy, he must first understand how the enemy thinks. He can then orchestrate the adversary's responses. He will work to understand the enemy better than the enemy understands himself, then he will deceive the enemy's brain, not his eye.

The Germans v. the Soviets I. Soviet dictator Joseph Stalin despised and feared English Prime Minister Winston Churchill more than he did German dictator Adolf Hitler. Indeed, we know that in 1941 Stalin believed that reports of an imminent German attack were part of a brilliant British disinformation campaign, not a brilliant German deception operation. Even when undeniable Wehrmacht military buildups were observed and reported by communist spies, Stalin dismissed the reports because the Germans had orchestrated an illusion that played to Stalin's fears of the British.

The Germans suggested that the buildups were simply to pressure the Soviets for concessions in an upcoming parlay, making Stalin believe the buildups were in no way a prelude to war. In fact, when a German diplomat stated that war was imminent, Stalin believed and asserted that the nefarious disinformation had reached the ambassadorial level. The Germans had only to convince Stalin of their benign intent until they were ready to

launch the great assault of Operation Barbarossa.

The Germans v. the Soviets II. In World War II, during the battle of Stalingrad, massed Soviet gunfire suppressed German artillery batteries one by one. Even when the Germans were out of sight, crater analysis served Red Army intelligence sufficiently well to blast enemy gunners. Except for one battery, the German guns were silenced. This unseen battery fired away, despite massive counterbattery fire.

Soviet analysts plotted and targeted every meter of ground near where the guns could possibly be. Yet the Germans kept firing and killing Russians by the score. The mystery was only solved after the Germans surrendered. The wily battery commander had hammered his guns into the frozen Vistula River. Thus, he appeared to be defying natural law. The facts did not change; the enemy's brain had been tricked.

The Germans v. the British. Nordpol was the code name of a German deception operation practiced against England early in World War II. British-trained agents were dropped into Holland from secret night flights. Each agent had a radio with which to contact London to vouch for his safe arrival and subsequent actions. Despite the fact that when reports began to come in they did not include confirmation codes, the British never suspected that the operation was compromised. Only when one of the imprisoned British agents escaped was the truth revealed.

Desire to believe something is true can cause the denial of confirmatory observations. In this case it was often believed that the agents were too tired or too mentally drained to identify themselves properly. The allies ascribed reasons to each and every inaccurate message. The Germans gave just enough true information to offset any total reassessment by the English agents. Thus, a subtle form of disappearance was used. The absence of confirmatory codes was explained away by simply allowing the British to fill in the reason themselves. After all, were not valid, if relatively insignificant, messages coming from the agents on the ground?

German counterintelligence personnel knew that a deception must fool the prevailing adversarial interpretive mind. They understood that when bureaucracies vouch for something, they are virtually impervious to change thereafter. When the first captured British-trained agent's confirmation was believed by his English handlers, the Germans concluded the others would be also. The Germans knew that the most difficult path for any analyst was to try to counter received opinion, particularly in the intelligence field. If the high command said all was well, who were the analysts to argue?

The Arabs v. the United States. The Arab world regularly denounces the U.S. media's stereotypical portrayal of its inhabitants as Middle Eastern terrorists. Osama bin-Laden exploited this situation when, instead of attacking embassies in the Middle East, his followers blew up two U.S. embassies in Africa, where the attack was a total surprise. The sudden appearance of Arab terrorists in benign backwater countries far from disputed areas was something the United States had never suspected or planned for.

The Russians v. the Chechens. During the recent Chechen rebellion against Russia, the Russians trapped Chechen rebels in Grozny. The rebels offered the Russians hundreds of thousands of dollars to allow Chechen fighters to escape safely through a minefield that surrounded the beleaguered city. The Chechens knew Russian corruption well. In fact, they had bought many weapons and much ammunition from the Russians for money and hashish. Why not pay to survive to be able to fight another day?

The money was passed, the path through the minefield was cleared, and the day of escape approached. At dawn, the Chechens entered the minefield. To their shock, the Russians, using registered artillery fire, began firing on the Chechens, forcing them to run in panic into areas where the mines had not been cleared. A Russian general commented later that what surprised him was that the Chechens believed the Russians at all.

Chechen perception of what was true about individual mercenary practices was not true about the Russians' relentless will as a group. Russian individual corruption could not be extrapolated to the entire army. We can learn from this that we can be deceived by our own preconceptions when falsely applied to known facts.

What the Mind Believes

Many people still debate whether British and American double agents Kim Philby and Alger Hiss were actually guilty of spying for the enemy. They were of a certain social class, therefore many people consider the possibility that they could have been traitors inconceivable. If all members of a leading social class are loyal, how can they betray their country? The trick was observable, but the mind did not want to *believe.* Even when Hiss appeared in the Venona decrypts, his supporters refused to believe he was guilty. If Philby and Hiss were guilty, a veritable "natural law" was compromised.

During World War II in North Africa before the attack at El Alamein, the British were confronted with the problem of how to hide thousands of barrels of gasoline. The solution was to line the barrels up side by side, snug against the edge of abandoned trenches that had been dug months earlier. The German analyst, having viewed the same trenches in dozens of aerial photos, would not notice that the trench shadow was just a little wider than before. What *appeared* to be truck parks with lazy campfires nearby confirmed for the analyst the absence of danger. Yet, when the British attacked, it was with well-fueled tanks that had been hidden under fiberboard truck covers. The attack turned the tide in the Sahara in favor of the British. Transposition of objects helped defeat German aerial observers because although they observed the field of battle, they never really saw it.

During World War I, when the Arabs revolted against the Turks, British military liaison T.E. Lawrence and Arabian tribesmen appeared to be mired in a torpid, sleepy Wadi, unable to take a major town or, indeed, to even formulate a plan. Suddenly Lawrence and his compatriots struck as if from nowhere to take the town of Aqaba. The Turks were shocked because they believed that the wide, sandy wastes could not be crossed.

In World War II, U.S. General Douglas MacArthur believed the Chinese army incapable of advance without detection by the United States' superior aerial intelligence systems.

Chinese General Mao Zedong's army advanced by night, using the threat of death to keep the men under cover by day. They took U.S. troops by surprise by secretly crossing the Yalu.

Appeared (seemed), believed, enticed; these are abstract words; words of the mind, not of technology. U.S. analysts must be aware of preconceptions. They must ask themselves what they believe to be true. This is perhaps the hardest question they can ask themselves. Whoever answers this question will best be able to use, or defeat, deception. This casts into high relief what Sun Tzu meant when he said, "If you know the enemy and know yourself, you need not fear a hundred battles."[2]

Exploiting Beliefs

If we know ourselves, we have identified the first target of an adversary's deception. We can then ask how the enemy might try to deceive us. What is he doing to exploit our beliefs? What is he doing to make us believe something? How is he making himself appear? What will he try to entice us into doing? Using these concepts to manipulate us can be powerful force multipliers to a determined enemy.

If we apply counterdeception, which corresponds to an awareness of the principles of suggestion as used in magic, we can begin to interpret an adversary's schemes. The power of suggestion, or magic, has been used for thousands of years. The old adage, "we are not deceived; we deceive ourselves," is only true if we allow it to be. *MR*

NOTES

1. Sun Tzu, *The Art of War*, chapter 1, verses 18-20.
2. Ibid., chapter 3, verse 18.

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Ensuring Military Justice
Colonel Calvin L. Lewis, U.S. Army

Commanders at every level know that ensuring military justice is a mission of the greatest importance; however, not all commanders know how to accomplish this. An abundance of information is available on military justice, and there is certainly no shortage of Army lawyers to advise commanders on these matters. Nevertheless, ensuring justice is a difficult mission.

The burden placed on commanders to fashion just the right punishment to suit each and every offense in a unit requires a delicate balance between the seriousness of the offense and the quality of the soldier. While no magic formula exists to ensure justice in every case, there are some standard guidelines for commanders to follow when handling military-justice matters.

Know the Mission

In military justice, the first thing commanders must understand is the mission—*to do justice*. Until commanders fully understand and appreciate this concept, they cannot ensure justice in their units.

The concept of justice sounds simple enough, but it is often complex when applied to specific cases. Recently, when asked how he ensured justice in his command, a general officer responded that he treated every case as if the suspect were his own son or daughter. He worked hard to ensure that he knew all the facts of the case and to give the soldier the benefit of all doubt. When imposing punishment, he made sure he knew the soldier's background and personality well enough to make the right decisions, just as he would in the case of his own children. This standard is a good one for commanders to remember and apply. Other abiding concepts will also help ensure justice.

Give justice high priority. When commanders are constantly faced with competing priorities, there is the temptation to take short cuts to get things done. When it comes to justice, there can be no short cuts. Justice is a mission that deserves the highest regard and the fullest attention to detail. There is simply no substitute for doing things right. Commanders should take whatever time is necessary to gather facts, obtain advice, and make the correct decisions.

Keep an open mind. Commanders must not prejudge cases. Until they have gathered all the facts and learned all relevant information about the case, they are in no position to do justice. Often, the first reports of misconduct are incomplete and sometimes inaccurate. By not jumping to conclusions about the case, commanders will be in a better position to calmly and objectively gather all the facts and respond appropriately to the incident. A commander without an open mind is like an infantry division without its cavalry. The commander will be operating blindly, which is catastrophic not only in warfare, but also in military justice.

Have moral courage. Commanders must have the moral courage to take the "hard right over the easy wrong." In military-justice cases, matters are often neither black nor white, but shades of gray. Gathering all the facts in a given case, learning the quality of the soldier involved, and understanding and applying the law are difficult and time-consuming tasks. On occasion, it is easy and lazy to make presumptions in the absence of facts, ignore the quality of the soldier, and either ignore or reject the applicable law. Commanders must resist the temptation to take this low road. Concerned parents would not treat their children this way. Soldiers deserve no less.

Err on the side of the soldier. Because evidence is sometimes ambiguous, conflicting, unclear, or uncertain, commanders often have to make decisions under less than desirable conditions. When faced with such situations, commanders should remember that the burden of proof is not on the soldier, but on the command. If the evidence does not meet the standard of proof, the suspect is considered not guilty.[1] In close cases, the commander should give the soldier the benefit of the doubt because the U.S. system of jurisprudence holds that in a close case, it is better to find a guilty party blame-

less than to take the chance of convicting an innocent party. This fundamental principle is the foundation of the U.S. criminal-justice system, and it is this controlling principle that commanders should follow in deciding difficult cases.

Know the Facts

In handling military-justice matters, it is critically important that commanders know the facts of each case. Discovering the facts of any case generally requires an investigation. The Criminal Investigation Division investigates more-serious offenses, while Military Police Investigations investigates less-serious offenses. During a Commander's Inquiry or under the administrative procedures of Army Regulation (AR) 15-6, *Procedures for Investigating Officers and Boards of Officers,* the local command is responsible for investigating other cases.[2] Whatever the vehicle commanders use for the investigation, the most important thing is that the investigation be detailed and thorough.

A good investigation will answer all relevant questions and resolve all issues regarding the commission of offenses. Commanders must thoroughly read reports of investigation and satisfy themselves that they know and understand all the facts. If a report of investigation fails to answer any relevant questions or resolve any important issues, commanders should request or direct a follow-up investigation to answer these questions, resolve inconsistencies, or address unresolved issues, including following up on any misconduct raised for the first time by the initial investigation. If a follow-up investigation is insufficient, commanders should not hesitate to request or direct additional investigations until such time as they are satisfied that all the relevant facts needed to make the best possible decision are known.

Because unresolved military justice matters can have negative effects on unit morale, commanders should expedite investigations to resolve cases as soon as practicable. Waiting for a resolution can be especially hard on soldiers who are the focus of an investigation. Nevertheless, a thorough and detailed investigation is indispensable to achieving justice, and it should not be sacrificed in the interest of time.

Commanders must be deliberate and dogged when developing and discovering facts. Given a choice between expeditious resolution on one hand and detailed, deliberate investigation on the other hand, the commander should err on the side of conducting a thorough, detailed investigation. Commanders should consult with the command judge advocate early and often to ensure compliance with procedural and substantive legal requirements. They should also consult judge advocates regarding sufficiency of evidence and the need for further investigation.

Know the Soldier

The commander should get to know the soldier involved in a case. Knowing the soldier is equally as important as knowing the facts. Every soldier is unique, and the commander must consider each soldier's merits. No commander should ever make the mistake of deciding cases solely on the offense committed without taking into consideration the particular soldier involved. To do otherwise is to deny the soldier the justice the system demands.

To illustrate the importance of knowing the soldier, consider the following example. Two soldiers act together in missing a morning accountability formation. They are discovered later that morning at their respective duty stations and appear to be drunk on duty. The first soldier is a 19-year-old private who has been in the unit 8 months. He is an outstanding duty performer who has never before been in trouble. The second soldier is a 24-year-old specialist on his second tour of duty. He is a mediocre duty performer who has engaged in a series of minor acts of misconduct since arriving in the unit 2 years previously. Without knowing the background and personality of these two soldiers, the commander would logically punish them equally since both committed the same offense. However, because of differences in age, military experience, duty performance, and disciplinary records, the commander should probably punish the second soldier more harshly than the first. In other words, ensuring justice in a given case is specific to the individual soldier, not just the offense committed. This is a critical principle for commanders to remember and apply.

How does a commander come to know each soldier? In some cases, the commander will already have personal knowledge of the soldier, based on the commander's personal observations and prior interactions with the soldier. In many cases, however, because of the large size of the unit, the commander's knowledge will be limited because of the difficulty in getting to know all unit members well. Accordingly, commanders must rely on other sources of information concerning soldiers, such as the chain of supervision and soldiers' personnel records.

Supervisors know soldiers best because of the frequency of direct contact they have with soldiers. This is especially true of first-line supervisors. Commanders should consult supervisors early and often about soldiers involved in a case. On occasion, a commander's determination of guilt or innocence will turn on the issue of credibility. Supervisors are generally in the best position to provide information on a soldier's credibility. When practicable, the commander should consult the entire chain of supervision. Not surprisingly, members of the chain of supervision might have differing opinions about a soldier, which can often give the commander a better perspective of the soldier.

Personnel records are the other key source for learning about soldiers.[3] Before making key decisions, commanders should carefully and thoroughly review soldiers' personnel records, which contain a wealth of important information. Length of service, date of rank, prior assignments, family status, and other personal information appear in the records. Also, counseling statements and evaluation reports reflect the quality of the soldier's duty performance.

The records also contain past misconduct records, such as Article 15s and letters of reprimand, prior reductions in grade, and any prior military or civilian felony convictions. These records often reveal summarized entries of personnel information, favorable and unfavorable, that require the commander to follow up to discern important details about the soldier.[4]

The commander should carefully read all counseling records, especially

those of lower-grade enlisted soldiers since they do not receive written evaluation reports. In short, the commander should carefully read all relevant personnel records and consider the information when deciding the appropriate disposition in a case.

Know Disciplinary Options

Before taking any action, a commander should know and understand all available options for disposing of cases of misconduct, including punitive options such as courts-martial, Article 15s, and adverse administrative actions such as letters of reprimand and administrative elimination actions. Too often, commanders are unaware of all the options. This is especially true of adverse administrative options. As a consequence, some cases are disposed of inappropriately or less appropriately than desired.

Appendix A of the *Senior Officer Legal Orientation Deskbook* is a chart of all available administrative options for disposing of cases of misconduct.[5] Commanders should review or consider this chart, along with appropriate punitive options, in connection with all cases of misconduct. By considering all available options, commanders are more likely to ensure proper disposition of cases, which in turn will ensure better justice in individual cases.

Know Consequences and Effects of Options

Commanders too often make disciplinary decisions without knowing or fully appreciating the administrative consequences of their decisions. As a result, they can inadvertently expose soldiers to greater or lesser punishments than intended. Suppose a commander were to impose an Article 15 on Staff Sergeant Jane Doe for showing up late for duty and being drunk on duty. Both events occur on the same morning. Doe admits to the offenses and apologizes for her lapse in judgment. She explains that her conduct was a direct result of emotional turmoil she is experiencing because of a bitter divorce. Her actions do not reflect her normal conduct, which has been exemplary in every way. Realizing this, the commander seeks to impose light punishment because he does not wish to cause permanent harm to Doe's career. At the Article 15 hearing, the commander only imposes extra duty, restriction, and a significant forfeiture of pay, but he does not reduce her in grade. However, he elects to file the Article 15 in the performance section of Doe's Official Personnel Military File (OPMF). As a consequence, Doe becomes vulnerable to a U.S. Department of the Army (DA)-directed bar to reenlistment.[6] This was an unintended consequence of the commander's filing determination. The commander had wanted to make a record of Doe's misconduct, but he did not intend to expose her to a possible bar to reenlistment.

In another example, First Lieutenant Able Sentry is apprehended for driving while intoxicated (DWI). The commanding general (CG) imposes an administrative letter of reprimand as required by regulation.[7] The chain of command recommends in writing that the CG file the letter of reprimand in Sentry's OMPF.[8] The CG accepts the filing recommendation and directs that the letter be filed in Sentry's OMPF.

In addition to the letter of reprimand, the CG offers Sentry an Article 15. Later, during the Article 15 hearing, the CG is surprised when the chain of command orally recommends filing the Article 15 in the restricted section of Sentry's OMPF. The CG asks the chain of command why it recommends filing the Article 15 in the restricted section of the OMPF when it had already recommended that the letter of reprimand be filed in Sentry's OMPF. The chain of command responds that when it recommended filing the reprimand in Sentry's OMPF, it assumed the reprimand would automatically be filed in the restricted section of Sentry's OMPF. The CG explains that filing letters of reprimand in the restricted section of the OMPF is not a legal option. All such reprimands must be placed in the performance section of the OMPF. The chain of command realizes too late that the reprimand has been placed in Sentry's performance OMPF where promotion boards and other DA boards that review his file will see it and consider it when reviewing Sentry's file.

Except for this reprimand, Sentry has had an outstanding military record, and until the DWI, he was thought to be one of the best lieutenants in the brigade. At the next captain's selection board, he is nonselected for promotion, and he becomes the unintended victim of his chain of command's lack of understanding of the consequences of an OMPF filing.

Consider the case of Major (Promotable) Bill Liar. Liar requested and received permission to take leave for 5 days—Monday through Friday. He returned 7 days later, but claimed that he actually returned from leave on Friday, the fifth day. The garrison commander's investigation determined that Liar did not return to his unit until late Sunday night, the seventh day. The garrison commander gave Liar an Article 15 for being absent without leave. The garrison commander imposed the maximum punishment and directed the action be filed in the performance section of Liar's OMPF.

Six months later, the garrison commander notices that Liar has been promoted to lieutenant colonel (LTC). The garrison commander wonders how Liar could have been promoted when an Article 15 has been filed in his performance OMPF. The adjutant informs the garrison commander that once the punishment was served, the "flag" was lifted, and Liar was eligible for promotion.[9] The garrison commander is livid. He thought the Article 15 automatically removed Liar from the LTC promotion list. The adjutant advises him that there is no such automatic action. The adjutant then advises the garrison commander that if he had wanted Liar to be removed from the LTC promotion list, he should have initiated such an action.[10] Frustrated and angry, the garrison commander storms off convinced that Liar's promotion was a clear injustice. Had he known that removal from the promotion list was not automatic, he would have initiated removal action. In this case, he has only himself to blame for failing to understand the administrative consequences of his actions.

The examples above illustrate how important it is for commanders to understand the administrative consequences of disciplinary actions. To learn these consequences, commanders should coordinate all actions with the command judge advocate and adjutant. More important, since judge advocates and adjutants are not always fully aware of consequences themselves, commanders

should direct them to research these consequences before the commander takes disciplinary action. As always, commanders are ultimately responsible for ensuring that they impose as much punishment as they intend—no more and no less.

Ask for Chain of Command Input

There is no substitute for getting input from the chain of command or chain of supervision regarding appropriate disposition of misconduct.[11] Supervisors and superiors in the chain of command or supervision provide critical information to commanders about each soldier's duty performance, attitude, value to the unit, past misconduct, and rehabilitative potential. This is especially true for first-line supervisors, who generally know soldiers best. Supervisors can also tell the commander what, if any, counseling or rehabilitative efforts have been conducted in the past. Supervisors also provide essential information about the effect of a given offense on the unit.

Supervisors are of the greatest value in determining appropriate disposition of cases, including providing input to the commander on the appropriate level of punishment. When practical, the commander should consult in person with supervisors and superiors in the soldier's chain of command. This will provide them the opportunity to ask follow-up questions and to acquire important background information. On occasion, this will cause delay in disposing of cases, but such delay is justified in the interest of justice. If asking for personal input from the chain of command is not practical, the commander should get input in writing, at a minimum. Written input should include the following:

 Duty performance, past misconduct, rehabilitative potential, past counseling, and when practical, written support documentation (counseling statements, evaluation reports, past letters of reprimand or Article 15s).

 Recommended disposition (Article 15, letter of reprimand, memorandum of concern, counseling).

 Past rehabilitative efforts and other remedial measures.

 Type and amount of punishment, if appropriate (reduction in grade, suspended punishment, forfeitures).

 Filing determination, if appropriate (OPMF, local filing, performance section of the OPMF, restricted section of the OPMF).

Even when members of the chain of command or supervision are on temporary duty, on leave, or deployed, their written input should be obtained except in the most unusual circumstances.

Maintain Two-Way Communication

Handling cases of misconduct is an unpleasant but necessary part of command. For soldiers charged with or suspected of misconduct, the experience is personal. In many cases, the day of the Article 15 hearing (administrative proceeding, trial, or other disposition) is the most important day in the soldier's life. No one in the system, except perhaps the victim, if there is a victim, has as much at stake. The soldier could possibly lose pay, rank, military career, or freedom. The soldier might also face social stigma, public embarrassment, loss of esteem, and other such unpleasantness.[12] Because of what is at stake, and in the best interest of justice, it is critically important that the commander keep the soldier abreast of the status of the case and be allowed to have input in the process.

Where appropriate, the commander should remember the presumption of innocence and keep the soldier informed of the status of the case. Rarely will a soldier be completely unaware of being under investigation. Even more rarely will there be a good reason not to inform the soldier of the status of an investigation.[13]

Normally, a soldier under investigation experiences emotions ranging from minor annoyance to extreme anxiety and depression. At times these emotions are an unavoidable byproduct of the situation. At other times, uncertainty regarding the status of the investigation and the command's response will cause or heighten emotions. Commanders should therefore ensure that soldiers

are periodically advised of the status of the investigation, including an estimate of when the investigation will be completed, a summary of the decisionmaking process, and who the decisionmaker will be. If a lawyer represents the soldier, the commander should provide the information to the soldier's lawyer after consulting with the command judge advocate. In this way, the soldier is likely to be less emotional about the investigation and more productive while the matter is pending.

Ensure the soldier gets the opportunity to give his version of the facts. As a matter of law, soldiers have certain rights that must be protected, including the right to remain silent when confronted with charges and the right to have an attorney present during questioning.[14] Notwithstanding these protections, many soldiers want to waive their rights to remain silent or to ask for legal representation when giving their version of events. Allowing soldiers this opportunity is fundamental to ensuring fairness. Often, the commander can only get at the truth after hearing the soldier's side of the story. This puts the commander in a better position to determine what really happened.

Where the case is close and credibility key, the command should consider offering the soldier the opportunity to take a lie-detector test. Lie-detector tests are not considered sufficiently reliable to admit the results at trial, but they might be useful to the command in making difficult determinations when the facts are close and could help determine that the soldier did *not* commit the offense.

During the investigation, the soldier might choose to make a statement or tell his version of the case directly to the commander. The soldier will either have the right to do so, or he can request permission to speak during the adjudication of the case (such as during a letter of reprimand filing determination).[15] Generally, the commander should take full advantage of this opportunity and allow the soldier his day in court. This would allow the commander to observe the soldier's demeanor and to ask any questions the

investigation did not answer. Sometimes the commander's decision will turn on this appearance by the soldier. On adverse administrative matters in which the soldier has no right of appearance, the commander can and should grant the soldier the privilege of a personal audience at the soldier's request. As a general rule, commanders should err on the side of seeing the soldier, even where the soldier has no such right.

Decide the Case

After a full, fair hearing on the facts, or in the case of certain adverse administrative actions, after reviewing all written materials and other evidence, the commander must make a decision in accordance with the facts, the law, and his conscience. The commander should keep in mind that the goal is to do justice. Toward that end, and to the extent practical, he should resolve any remaining issues before making a decision. He can and should rely on personal experiences and instincts in making the right decision. Again, when the facts are close, the commander should err on the side of the soldier. The system demands it.

Once the commander makes a decision, he should tell the soldier what his decision is and explain why he decided the case the way he did. This is also a good opportunity for the commander to counsel the soldier on the short- and long-term consequences of any adverse action, as well as the consequences of continued misconduct. The commander should also inform the soldier of the option to appeal the commander's actions if he desires.

Fit Punishment to the Crime

In deciding appropriate punishment, the commander should impose only so much punishment as fits the crime. He or she should craft punishment to address the particular case of misconduct and the particular soldier at issue and resist the temptation to resolve all the Army's ills by exacting punishment in one particular case. The commander should seek to do justice in each and every case based on the merits of that particular case only. While general deterrence is an acceptable goal of punishment, the commander must ensure punishment is not disproportionately severe for the offense committed.[16]

When a commander imposes punishment, there are several key questions he should ask himself:

❑ Can I live with the standard set by the punishment? Because each case of misconduct and the resultant punishment sets a certain standard for soldiers in the unit, the commander should ask whether he could live with the standard set by the punishment. For example, a commander learns that the best soldier in the unit has tested positive for marijuana use during a urinalysis screening. The soldier confesses to the offense and admits to using extremely poor judgment by bowing to peer pressure while on leave. The commander wants to give the soldier a break because the soldier's conduct and duty performance have otherwise been exemplary. However, the commander decides to take a hard line in order to send a message to the entire unit that drug use is unacceptable and will not be tolerated, no matter who the offender is. The commander imposes a stiff punishment because it sends the right message and sets the right standard for the unit.

❑ Am I being consistent? The commander should ask whether his decision is consistent with similar decisions made regarding punishments. All things being equal, similar offenses should be punished similarly. Hence, two soldiers with equal or substantially equal quality of service should receive the same or similar punishment. Otherwise, the commander stands to be criticized for imposing punishment arbitrarily or capriciously. Whether commanders realize it or not, soldiers watch them closely, especially when it comes to basic fairness in matters such as reward and punishment. Accordingly, commanders must guard against even the appearance of not being evenhanded. Of course, on many occasions the quality of the offending soldiers will differ; therefore, differences in punishment are not only acceptable, they are appropriate. To ensure the unit understands these differences, commanders should explain their decisions to the chain of command or supervision and allow the information to filter down to members of the unit. In the end, notwithstanding what unit members might think, the commander must impose punishment in a fashion that ensures justice. To do less is unacceptable and cowardly.

Follow Up

In most cases, imposition of punishment is not the final step for the commander. Follow-up actions, including various kinds of rehabilitative efforts, might be appropriate. Rehabilitation is especially important in cases involving soldiers who have addictions (alcohol, drugs, gambling). Commanders should refer soldiers with personality disorders or sociopathic tendencies to medical authorities. Because all post-punishment rehabilitative efforts must be carefully arranged and closely monitored, commanders should direct periodic briefings on the status of all rehabilitative efforts.

In addition to managing rehabilitative efforts, the commander must properly annotate personnel records, implement any forfeiture of pay or reduction in rank, plan and supervise extra duty and restrictions, or monitor suspended punishment until the period of suspension expires. The commander should also assess the soldier's overall record and value to the Army to determine if additional adverse administrative actions are merited.[17] Finally, to the extent that the case exposes deficiencies in the unit, the commander must take action to correct such deficiencies. Exposing shortcomings in a unit's functioning is not uncommon during cases of misconduct. Some common areas of deficiency might include the unit's counseling program, security measures, or rehabilitation program.

Guarantee Fairness

Commanders who follow these guidelines can establish standard procedures for handling cases of misconduct to ensure the Army keeps "justice" in military justice. The result will be a standard leadership practice that guarantees every soldier the greatest measure of fairness. *MR*

NOTES

1. If the evidence does not meet the standard of proof, the suspect is considered not guilty or not responsible, as the case may be, depending on whether the proceedings are punitive or administrative.
2. U.S. Army Regulation (AR) 15-6, *Procedures for Investigating Officers and Boards of Officers* (Washington, DC:

U.S. Government Printing Office [GPO], 11 May 1988). *See also* "Rule of Court-Martial 303," *U.S. Manual for Court-Martial United States 1998* (Washington, DC: GPO, 1998) for more information on a commander's inquiry.

3. Key personnel records include counseling statements, evaluation reports, the unit personnel file, the Military Personnel Records Jacket, Enlisted Records Brief, Personnel Qualification Record (DA Form 2-1), and the Officer Record Brief.

4. If an entry in the records shows that in the past a soldier was reduced in grade, but there is no further explanation in the record, the commander might want to investigate further to determine the reason for the reduction in grade.

5. The Judge Advocate General's School, *Senior Officer Legal Orientation Deskbook* (Charlottesville, VA: DA, April 2000), appendix A.

6. See AR 601-280, *Army Retention Program* (Washington, DC: DA, 31 March 1999), chapter 10. NOTE: The proponency and guidance for the Qualitative Management Program is moving to AR 635-200.

7. See AR 190-5, *Motor Vehicle Traffic Supervision* (Washington, DC: DA, 8 July 1988), 6.

8. Commanders usually make filing determinations on reprimands without holding a hearing. Generally, filing determinations are based on documents presented to the commander, including written recommendations from the chain of command.

9. See AR 600-8-2, *Suspension of Favorable Personnel Actions (Flags)* (Washington, DC: DA, 30 November 1987), paragraph 1.12a(3).

10. *See* AR 600-8-29, *Officer Promotions* (Washington, DC: DA, 30 November 1994), chapter 8.

11. Where the chain of command and chain of supervision are different, commanders should get input from whichever chain knows the soldier best if it is not possible to get input from both.

12. Social stigma is broad-based and can include ridicule from the unit and community, embarrassment caused by public knowledge of the discipline action, and even post-military job prejudice in the case of a court-martial conviction.

13. There are circumstances, however, under which the command should not inform the subject of an investigation until the time of apprehension. This includes circumstances where the subject might intimidate witnesses, tamper with evidence, or flee.

14. *See U.S. Uniform Code of Military Justice* (Washington, DC: GPO, 1951), vol. 10, section 831, as amended through 31 December 1998; See also *Miranda v. Arizona*, 384 U.S. 436 (1966).

15. A soldier has the right to speak at a court-martial, an Article 15 hearing, or at administrative separation proceedings.

16. General deterrence is the concept of imposing punishment in one case in such a manner as to discourage similar misconduct by others.

17. Administrative separation actions might be appropriate in cases where the soldier's record reflects a consistent pattern of misconduct.

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$_{M_R}$Almanac

Why the German People Went Willingly to Ruin
William J. Pellas

History is written by the victors. So goes the oft-repeated pithy proverb. While historians are aware that bias or myopia on the part of the victors might (or might not) cloud the objectivity of their chroniclers, they might still sometimes fail to perceive inaccuracies in popularly accepted interpretations or versions of events. So it is with the study of Adolf Hitler's Germany.

The United States was the dominant nation in the alliance that defeated Hitler's Germany and Tojo's Japan. Not surprising, then, is that most—although not all—of the best known and most popular accounts of the conflict emanated from the United States during the years following the war. Unfortunately, when it comes to the clash between the Soviet Union and Nazi Germany, some U.S. histories lack comprehensive detail, in particular in the long, tangled pre-war story that helps explain why so many otherwise seemingly reasonable Germans so eagerly sought battle with Soviet Russia.

Part of the answer lies in the paranoid nature of the Soviet State. Only in the last two decades have Russian documents relating to Operation Barbarossa been allowed to be seen outside the Kremlin's walls.[1] Another part of the answer lies in the limitations of U.S. involvement in the war as a whole. The strategic bombing campaigns, the Battle of the Atlantic, the Normandy landings, the Battle of the Bulge, the war with Japan; these were the distinctly American events of World War II. The primary U.S. contribution to the Eastern Front was in the area of logistics—supplying the Soviets with significant quantities of food, clothing, and munitions. The conflict was largely outside the U.S. experience, however, except for the sailors and airmen of the Murmansk supply convoys.

German Motives

Popular culture has made its contribution to the often-inadequate understanding of German motives. Deconstructionist, even Marxist, scholarship has also played a part in oversimplifying or distorting the broader picture of the German reason de guerre.[2] Also, the simple passage of time and the passing away of living memory have served to gradually erode the presence of important, relevant information in the general public consciousness.

Nonetheless, simple racism and fanatical devotion to quasi-mystical Nazi totalitarianism—the obvious explanations—are not enough to account for nearly four years of horrendous German bloodshed. While these factors were certainly important, especially among the younger Germans of the time, still they do not entirely explain the willingness of the majority of the people and of the military (especially the High Command) to go along with the death struggle with Russia.[3] The true picture is more of a mosaic.

Among other things, Hitler was a World War I combat veteran. Although only a corporal, he nonetheless served with some distinction. As a battalion runner for the 6th Bavarian Reserve Division, he was twice wounded in action and was even temporarily blinded by a British gas attack.[4]

Hitler's honorable experience gave him the usual cachet with the general public and, more important later, with the German military establishment. The experience also gave him the same sense of loss, moral indignation, and above all, towering rage that so many of his fellow citizens felt in the face of the High Command's demand that the government sue for peace, a move which seemed to Hitler an utter betrayal of the two million soldiers who had already given their lives for victory.[5]

"So it had all been in vain," Hitler himself recalled in *Mein Kampf.* "In vain all the sacrifices and privations . . . in vain the hours in which, with mortal fear clutching at our hearts, we nonetheless did our duty; in vain the death of two millions who died . . . . Had they died for this? Did all this happen only so that a gang of wretched criminals could lay hands on the Fatherland?"[6] Indeed,

so many soldiers had died in the fighting that thousands were never properly identified, only buried under gravestones marked "unknown."

Soon after war's end, France and England were at least able to retrieve most of the bodies of their fallen and either re-inter them on home soil or create formal cemeteries and build memorials to them where they fell. Germany was further humiliated after the Treaty of Versailles when the victors refused to allow similar monuments to the Kaiser's fallen troops. Thus, "the Germans were obliged to excavate mass graves in obscure locations to contain the remains of their casualties."[7]

Germany would long remember this insult added to the profound psychological and emotional shock suffered by all combatant nations in the Great War. Hitler later put this outrage to effective use when Nazi Party writers and propagandists began referring to him as the "unknown" corporal, the "living embodiment of the unknown soldier Weimar Germany had failed as a state to honor."[8]

German Civil War

Inextricably interwoven with this sort of emotionalism was what amounted to a German civil war in the years immediately following World War I. Once the Kaiser abdicated, dozens if not hundreds of little wars were fought in the streets and countryside of Bavaria; along the eastern frontier of Germany (against the Poles and the peoples of the Baltic States); and throughout most of the provinces of the Fatherland.[9] The physical ruin of Germany, with the emotional ruin brought by defeat, created fertile soil in which demagoguery of all kinds flourished. Predictably, the major players who swiftly emerged in the struggle were leftist Bolsheviks and right-wing reactionaries.

In Munich in 1919, a party calling itself the Social Democrats set up a miniature Soviet state.[10] Significantly, the leader of this group was a Jewish writer named Kurt Eisner. After Eisner's assassination by an aristocratic Army officer, his followers became communist in name as well as by policy, but they did not last long. Army units from Berlin joined with freikorps—volunteers—and overthrew this infant Red government. Several hundred died.

In 1920, the moderate government that had followed the communist one was itself cast aside in favor of an Army-backed regime. Next, "the Bavarian capital became a magnet for all those forces in Germany which were determined to overthrow the Republic, set up an authoritarian regime and repudiate the Diktat of Versailles. . . . Here Ludendorff settled, along with a host of other disgruntled, discharged Army officers."[11] Ludendorff wrote to his wife to say that "with an easy conscience, I would have Ebert, Schedemann and Co. hanged, and watch them dangle."[12] Ebert and Schedemann were among the leaders of the national German government then current the—Weimar Republic. Anti-Semitism, already well established, was given more force by the fact that the Republic's Foreign Minister, Walter Rathenau, was a Jew, and the reactionaries hated him because he was responsible for the government's ongoing compliance with the treaty.

In Berlin, too, there had been a determined effort by communists to launch a Soviet state. This group, known as the "Spartacists," was finally crushed—at the behest of the infant Weimar Republic—by another joint Army-freikorps force.[13] This was certainly not the last of the communists, however. All through the early to mid 1920s they continued to battle with the forces of the right.[14]

What both groups had in common was a shared hatred of the Weimar government and of the Treaty of Versailles. Their proposed solutions to the German crisis, however, were diametric opposites. The left, of course, wished to join with its Russian counterpart in uniting the workers of the world in a planetwide glorious revolution. The right favored a strong and strongly nationalistic Germany, even a reinstitution of the monarchy. Thus, what eventually became Nazism might best be termed a counterrevolutionary movement.

In the background of these upheavals was the general poverty and wild inflation wrought by crippling war reparations, conditions further aggravated by the Great Depression. The widespread economic privations of the terms of the treaty forced on Germany are well documented, and it is a simple fact of human nature that empty stomachs make for a more suggestible populace. Taken in this context, it is not so hard to see from where Hitler's strident anti-Bolshevism originated, despite the obvious similarities between the future totalitarian states of Nazi Germany and Soviet Russia. Nor is it difficult to see why he enjoyed so much popular, but by no means universal, support. . . .

German Nationalism

Faced with a choice between an unjust peace aided and abetted by a weak republic on the one hand and on the other hand the "worker's revolt," by Trotskyite definition opposed to strong German nationalism in favor of worldwide communism, it is not difficult to see why so many average Germans flocked to Hitler, even those who were not so convinced of Aryan evolutionary superiority over the hated untermunschen.[15] While the Weimar Republic enjoyed the support of most of the German Army and its officers, it was neither reactionary enough to satisfy the right nor liberal enough to satisfy the communists.

This battle for the soul of the German government was really not settled until Hitler finally came to power in 1933. The communists remained the most powerful of the opposition groups in Germany until Hitler finally crushed them. Their determined activism, significant popular support, and ideological connection with Soviet Russia made them, in perception and, probably, in reality, the biggest obstacle to power in the path of the Nazis.

It was a short leap in aberrant logic to connect the internal suppression of domestic communism with the external invasion of the country where it had first seen the light of day as an organized political system. German General Heinz Guderian offered this analysis of the volatile situation: "The reasons for the Germans' submission to Hitler's powers of suggestion must first be sought in the failure of policy as manifested by the victor nations after the First World War. This policy prepared the ground in which the seeds of National-Socialism were to take root; it gave us unemployment, heavy reparations, oppressive annexation of territory, lack of freedom, lack of equality, lack of military strength. . . . As a result, the man who now promised to free them from the bondage of

Versailles had a relatively easy task, particularly since the formal democracy of the Weimar Republic, try though it might, could achieve no significant successes in the diplomatic field and at home proved incapable of mastering Germany's internal difficulties. . . .

"Hitler promised the Germans that abroad he could free them from the injustices of Versailles and that at home he would abolish unemployment and party strife. These were aims which were entirely desirable and with which any good German must agree. Who would not have approved of them? At the beginning of his career this programme, to which all decent Germans heartily subscribed, brought him the support of millions of men who were beginning to doubt the ability of their politicians and the good will of their former enemies. As one futile conference succeeded the last, as reparations grew more intolerable, as our inequality was increasingly protracted, so more and more men turned to the swastika."[16]

In the last free elections before Hitler assumed total control of the German state, the communists still managed to accumulate six million votes, and they were just part of the spectrum that voted against the Nazis, who at the height of their democratic ascendancy only managed 37 percent of the vote.[17] Drastic measures were necessary if the Nazi vision was not to be stillborn. Fortunately for them, so to speak, "they had two advantages over their opponents. They were led by a man who knew exactly what he wanted, and they were ruthless enough and opportunistic enough to go to any lengths to help him get it."[18]

Hitler Triumphant

Thus, following the 1940 Blitzkrieg, Hitler and Nazi Germany stood triumphant. All of Western Europe, with the lone exception of England, lay prostrate beneath the Nazi jackboot. Delirious with victory, supremely confident, and drunk with power, they turned next to "settle accounts with the Soviet Union," in no small measure to justify the twisted vision of Aryan racial superiority that had been brewing in Hitler's mind since the days of *Mein Kampf*.[19] For the committed Nazis, this was simply the next logical step. For most others who willingly joined the fight, the war with Russia was an anticommunist crusade. For far too many Germans

from every segment of their society, it seemed only reasonable. **MR**

NOTES

1. David M. Glantz and Jonathan House, *When Titans Clashed, How The Red Army Stopped Hitler* (Lawrence: University of Kansas Press, 1995), 1-2; Alan Clark, *Barbarossa: The Russian-German Conflict, 1941-45* (New York: William Morrow and Company, 1965), xix (preface).
2. For a comprehensive discussion of the general deterioration and shameful politicization of American scholarship, see Robert Bork, *Slouching Towards Gomorrah, Modern Liberalism and American Decline* (NY: HarperCollins Publishers, 1997) and Alvin Kernan, *In Plato's Cave* (New Haven, CT: Yale University Press, 1999).
3. Heinz Guderian, *Panzer Leader* (New York: E.P. Dutton & Co., 1954), 436.
4. John Keegan, *The First World War* (New York: Alfred A. Knopf, 1998), 195; William L. Shirer, *The Rise and Fall of the Third Reich: A History of Nazi Germany* (New York: MJF Books, 1959), 29-31.
5. Shirer.
6. Adolf Hitler, *Mein Kampf* (New York: Houghton Mifflin Co, 1998).
7. Keegan, 5.
8. Ibid., 6.
9. Shirer, 33-34.
10. Ibid.
11. Ibid., 34.
12. Ibid., 34 fn.
13. Ibid., 54-55.
14. Ibid., 64-65.
15. W. Bruce Lincoln, *Red Victory, A History of the Russian Civil War* (New York: Simon & Schuster, 1989), 522-3.
16. Guderian, 432-33.
17. Ibid; Shirer, 185.
18. Ibid., 149.
19. The Editors of Time-Life Books, *Barbarossa* (Alexandria, VA: Time-Life Books, 1990), 18-19;

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Payback in Staropromyslovsky

Ali M. Koknar

Between late December 1999 and mid-February 2000, Russian soldiers allegedly executed 41 Chechen civilians in 8 incidents in the Staropromyslovsky district, which is situated 5 kilometers to the northwest of the Chechen capital, Grozny. Most of the victims were women and elderly men, supposedly shot by Russians at close range.

Russian soldiers are said to have also committed many other abuses in the district, including looting and destroying civilian property and forcing residents of the town to risk sniper fire to recover the bodies of fallen Russian soldiers. Six Chechen men from the district who were last seen in Russian custody "disappeared" during the same period and remain unaccounted for.

Chechen witnesses reported that while most of the Russian soldiers occupying Staropromyslovsky were regular Russian Army soldiers, most of the alleged atrocities were committed by Russian Interior Ministry's (MVD) police special operations detachments known as Otryad Militsii Osobovo Naznacheniya (OMON) and Spetsialny Otriad po Bystromu Reagirovaniyu (SOBR).

Originally created in 1987 to deal with terrorist incidents, serious criminal activities, and the maintenance of public order, OMON units are organized like SWAT teams or light infantry, depending on their roles. The units, many members of which are veterans of the Afghan war and the first Chechen War of 1994-1996, also deploy to conflicts beyond their immediate operating areas. The Omonovtsy, as OMON soldiers are commonly called, commanded by Colonel-General Vyacheslav V. Ovchinnikov, are notorious for repressive lethal activities throughout the Russian Federation, often using false identities to avoid legal action against them.

Blood Vengeance

Even as they were leaving Grozny in early February 2000, Chechen fighters took note of the OMON atrocities and began contemplating how to best mete out their own Caucasian brand of punishment on the perpetrators. Call it a blood feud, a vendetta, or just a plain old grudge, in the Chechens' book paybacks are big.

Chechen military discipline is not based on centralized hierarchy of command because the groups of combatants are usually small and are often formed independently by circles of relatives, neighbors, or friends. The three maintaining pillars of Chechen discipline are loyalty to family or clan; honor and shame (or custom); and Islam.

Blood vengeance ("ch'ir")—not feuding, but straightforward one-life-for-one-life vengeance with no further retaliation— serves to maintain order in a chaotic context where legal justice cannot always be expected. Creating grounds for blood vengeance—deliberate crimes such as murder or rape—is considered one of the most heinous and repugnant offenses in Chechen society, and this is exactly what the OMON was alleged to have perpetrated in the Staropromyslovsky district—the deliberately murder of Chechen civilians.

Chechen Vengeance

After withdrawing from Grozny, Chechen guerrillas split into small groups in a bid to sneak undetected through Russian lines. About 300 fighters stayed inside Grozny, living in the extensive underground tunnels they had constructed. They surfaced at night in pitch-black conditions ideal for ambush to attack Russian patrols and to carry out surveillance of Russian movements in and around the city, which they relayed to Chechen commanders outside.

Isa Munayev, who had served as a police commander in Grozny before the war, was in charge of the city's defenses during the Russian siege until the Chechen withdrawal. He stayed behind Russian lines with his detachment of Chechen fighters and operated in the Staropromyslovsky district as well as the nearby villages of Andreyevskaya Dolina and Oktyabrsky.

The Staropromyslovsky district is generally known as one of the more unsafe places of the Chechen capital. Chechen guerrillas keep their ammunition caches in the area and lay ambushes in dilapidated buildings to attack federal forces or militia roadblocks even in daytime.

Munayev's men had conducted excellent reconnaissance and knew perfectly whom they would attack. The OMON convoy presented a soft target, as opposed to attacking an army column because the Russian Army traveled in BTR-60 and BTR-80 armored personnel carriers and BMP-3 tracked infantry fighting vehicles escorted by T-80 and T-90 main battle tanks with air support from Mi-24 HIND helicopter gunships.

So good was the Chechen preparation that after the ambush Russian authorities suspected a possible leak at the Russian operations headquarters in Mozdok, North Ossetia. The time of the ambush (1400 Moscow time) was also carefully selected. The area yielded thick fog in daytime, which provided concealment for the attacking Chechen fighters, whom the Russian soldiers began calling dusha (spirits), a term their older comrades had coined almost two decades earlier while fighting a cunning enemy in Afghanistan.

Chechen fighters identified the route that the OMON convoy would follow, and hours before the ambush, they began laying Russian-made TM-57 antitank and PMN antipersonnel land mines along a 350-meter stretch of the road and all exit routes. They had boosted some of the TM-57s with 120-millimeter mortar rounds and wired them as command-detonated mines. They also placed a few MON-50 directional antipersonnel mines similar to American Claymore mines on the sides of the road, so the mines would target OMON soldiers disembarking their vehicles. The MON-50s were also rigged for command-detonation.

The particular kill zone at the entry to Staropromyslovsky district was a quiet spot near Post 53, an OMON checkpoint and the convoy's final destination. On several occasions, the Russian government had declared the area safe, even vowing to set up polling booths there for the 26 March presidential elections.

The Chechens set up their firing positions carefully, with sufficient cover to protect them from return fire while still being able to engage targets using a crossfire pattern. After the ambush, Deputy Interior Minister Russian General Ivan Golubev described it as well prepared and skillfully designed.

Ambush

As the Chechens waited for the OMON, a smaller convoy passed through the ambush site. Barely containing themselves and knowing that the OMON convoy would be an even bigger target, the Chechens allowed those vehicles to pass, although one of them was carrying a Russian Army general.

On 2 March 2000, 98 Omonovtsy, originally from the town of Sergiyev Posad 70 kilometers northeast of Moscow, were traveling in nine Russian-made canvas-top trucks. They left Mozdok, in North Ossetia, earlier that morning and headed for Post 53 to relieve the OMON unit on duty; it was the first day of the unit's second tour of duty in Chechnya. They had served previously during the first Chechen war of 1994-1996.

Shortly after the first OMON truck entered the kill zone and continued to roll, the Chechen commander detonated the pre-positioned mines, and Chechen PKMs opened up as grenadiers volley-fired several RPG-7 grenade launchers with high-explosive (HE) rounds at the trucks. The resulting series of blasts caused havoc in the Russian column.

In textbook fashion, the lead and last trucks were hit with RPG rounds first, making it impossible for the seven trucks between them to maneuver. Unable to exit the kill zone, and trapped in their trucks, the Omonovtsy began taking AK and PKM fire, which to the Russians—unable to see the Chechen positions enveloped in fog—seemed as if the fire was coming from everywhere.

The soft canvas tops of the Russian trucks offered no protection from incoming rounds. Many of the soldiers mowed down by Chechen fire had been so confident of their safety in a part of Chechnya miles from the front line that they were not wearing their body armor or helmets. Twelve soldiers were killed during the initial volley, including the unit's commander, Colonel Dimity Markelov. Five Omonovtsy were hit so many times that their bodies could not be properly identified for burial days after the ambush.

Chechen mortar crews also began firing, raining HE mortar shells on the trucks and the Russians trying to take cover among them. The Chechen commander then detonated the MON-50 antipersonnel mines, which burst out fragments at the panicked soldiers. During the first 6 minutes of the ambush, the Russian column had been hit either by RPG, mortar, or small-arms fire, and two out of every three OMON soldiers were either dead or wounded.

The element of surprise worked well for the Chechens. They took little return fire and lost no fighters, although a few were slightly

wounded. The OMON could not call in air strikes because they lacked the proper radio frequency to communicate with Russian Air Force headquarters at Khankala air base just outside of Grozny.

Later, the surviving OMON soldiers claimed they held off the Chechens for five hours until reinforcements arrived. Usually, a Chechen guerrilla ambush on a Russian column lasts no more than 15 minutes. In fact, by the time the backup OMON unit (home-based in Podolsk, also in the Moscow region like the ambushed unit) arrived 20 minutes into the battle, the convoy had been badly mauled. The reinforcements could not immediately engage the Chechen fighters because of the mines. The Chechens had even forecasted the Russians' reaction. Land mines placed the previous night prevented the OMON detachment from advancing toward the Chechen firing positions.

One surviving OMON officer charged that agents of the Federal Security Service, the KGB's successor, which handles intelligence, failed to notify them of Chechen guerrilla movements. The Defense Ministry responded with criticism that the police vehicles had rolled into an ambush in close formation, as if on parade.

The back up Omonovtsy from Post 53 lost two men on arrival, discovering the TM-57 antitank mines by detonating them. Chechen ambushers engaged them also, and the ensuing firefight continued for the next few hours. Deciding they had done enough damage, the Chechens picked up a few AKS-74s, RPG-7 launchers, and Makarovs, whose OMON owners were no longer alive, and fled, leaving behind only empty shell casings.

Russian Air Force and artillery units are usually only summoned to aid federal detachments if the situation is close to critical. When the Chechens ambushed the OMON column the Russians called in a mobile armored group to "assist." Planes and their artillery are next to useless in close-quarter combat when the distance between opposed forces is less than 100 meters.

As other Russian soldiers arrived at the ambush site, the body count grew. Two OMON soldiers died later

of wounds in Grozny's Emergency Ministry Hospital, where they had been transported by helicopter. Out of the 98 OMON soldiers in the convoy, 37 were killed, or became "Cargo 200," the Russian military slang for killed in action. Thirty-one were "Cargo 300"—wounded in action.

Chechen commanders later claimed the Chechens had killed 60 Omonovtsy and wounded 35. The deputy commander of the ambushed OMON unit from Sergiyev Posad, Igor Luchikhin, blamed his and his deceased commanding officer's carelessness and lack of order for the death toll. Another survivor, Mikhail Simashkin, said that they had not expected such a ferocious attack in the Grozny area. Clearly, the OMON was caught completely off guard.

Chechen commanders claimed that only 13 fighters had executed the ambush. Although Russian officers conceded that as few as five experienced fighters could have staged the ambush with good preparation beforehand, they estimated that probably not less than 50 fighters had taken part. The true number of ambushers probably rests somewhere in between the two claims.

On hearing the news of the ambush, Russian interior minister Vladimir Rushailo, who bore the overall responsibility for OMON soldiers, called it a black day for the Russian police. He and senior OMON officer Vyacheslav Kozlovother suspected that local Chechens might have helped the guerrillas. OMON soldiers began raiding nearby homes and arrested 48 Chechen civilians on suspicion of taking part in the ambush. In the next few days, Rushailo blamed the commander in chief of interior soldiers for ignoring predetermined regulations on the movement of motor columns in Chechnya and ordered him to be replaced.

The ambush on the OMON soldiers, who are highly trained professionals, not "green" army conscripts, prompted Russian officials, such as President Vladimir Putin, to accuse security forces of carelessness. During the ambushed convoy's trip from Mozdok, the OMON commander, Colonel Dimity Markelov had been communicating by radio, and Russian Deputy Prime Minister Ilya Klebanov suspected that Chechens had intercepted his FM/UHF radio

transmissions. As a result of this lesson-learned, the Russian Management Systems Agency was tasked with developing a secure tactical communication system for Russian forces.

The ambush also underscored the need for individual protection for soldiers, prompting the Russian command to issue orders for extra security measures for convoys in Chechnya, including helicopter escorts, special reconnaissance before setting out from base, and a ban on convoy movements during bad weather.

An Eye for an Eye

Hours after the ambush, not too far from the Staropromyslovsky district, five Russian soldiers were found with their throats slit, raising the Russian death toll to 42. As far as the Chechens were concerned, they had taken ch'ir revenge. Forty-two Russians paid for the lives of the 41 Chechen civilians who had been murdered in Staropromyslovsky district.

In the weeks and months that followed the bloody ambush in the Black Hole, as the OMON dubbed Staropromyslovsky, Chechens continued attacking Russian forces in the district. They fired on blockposts with mortars and small arms, ambushed other troop convoys traveling through, lay mines and command-detonated explosives on roads, and placed bombs under parked police and military vehicles.

The Black Hole continues to be a favorite semi-urban stage on which Chechen fighters conduct attacks against the occupying Russia forces. During the first half of 2002 alone, in and around Staropromyslovsky, Chechens successfully laid antitank mines (some radio-controlled) that have killed and wounded scores of Russian soldiers. **MR**

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MRBookshelf

Middle East Security Policy: Catching Up Through Reading

Lieutenant Youssef H. Aboul-Enein, U.S. Navy

Various U.S. Army and Navy groups often ask me which books they should read about Islamic militancy, Persian Gulf stability, and the Israeli-Palestinian dispute. The following reading list includes short descriptions of recently published books that address the issues.

Islamic Militancy

We must address and understand Islamic militancy within the context of the history of the Persian Gulf region. To merely be aware of key figures and events of Islamic militancy is not sufficient. We need to comprehend how Islamic militancy evolved and what caused key actors to develop as they did within the moderate regimes of the Middle East. Also of concern are Islamic militancy networks and their access to weapons of mass destruction (WMD).

Peter Bergen's **Holy War Inc.** (New York: The Free Press, 2001) discusses Islamic militant networks and provides insight into Osama bin-Laden and the development of the Al-Qaeda organization. Readers will gain knowledge of how the globalization of Islamic militancy began in the trenches of Afghanistan during the fight against the Russians. After the war, Islamic soldiers returned to their respective Islamic organizations infused with a new sense of armed struggle. The Al-Qaeda formed a loose network with Egyptian, Yemeni, Sudanese, and other Islamic radical groups who wished to topple their respective regimes to usher in Islamic states. Bergen, formerly with ABC News, describes Al-Qaeda as a corporate structure with political, military, financial, training, and logistics departments. His book offers a baseline understanding of this notorious group.

Augmenting Bergen's book is Walter Laquer's **The New Terrorism: Fanaticism and the Arms of Mass Destruction** (New York: Oxford University Press, 1999). Laquer holds The Henry Kissinger Chair for National Security Policy and is a prolific writer on national security affairs. In *The New Terrorism,* he breaks the evolution of terrorism into what he calls "waves." The 19th century was an era of nationalist-separatist terrorism. The 1960s and 1970s had a leftist, communist-inspired tendency. The latter 20th century saw the arrival of religion- and rightist-inspired terrorism.

Laquer compiles a profile of a suicide bomber who is studying the so-called martyrs of the HAMAS (the Islamic Resistance Movement) and Hezbollah (Islamic fundamentalists) organizations and describes the fanaticism and paranoia that grip these organizations. He dedicates a chapter to WMD and the likely organizations that would employ them. Not all terrorists groups see WMD use as a viable political alternative, and only a handful sees such mass-murderous tactics as viable means to achieve their objectives.

For centuries Egypt has been the birthplace for positive and negative Islamic ideas. It is home to Sheikh Hassan al-Banna, founder of the earliest Islamic radical movement—the Al-Ikhwaan Al-Muslimeen. Sayed Qutb wrote the first pamphlet, **Guideposts** (no publisher information available), that advocated the removal of a Muslim leader allied with the West or with the communists.

Mary Anne Weaver's book, **Portrait of Egypt: A Journey Through the World of Militant Islam** (New York: Farrar, Straus and Girroux, 1999) reveals how current government and economic conditions are breeding grounds for Islamic militancy. Weaver provides insightful anecdotes that illustrate why these violent radicals hate the United States.

Mark Huband's book, **Warriors of the Prophet: The Struggle for Islam** (Boulder, CO: Westview Press, 1998), presents a powerful caution to policymakers not to fall into the trap of the clash of civilizations theory Samuel P. Huntington postulates in **The Clash of Civilizations and the Remaking of World Order** (New York: Touchstone Books, 1998). That there are so many countries within the Islamic world that differ in culture, history, and political identity, coupled with the debate among Muslims over secularism, monarchists, theocracies, and democracies, precludes an "Islam Against the West Theory." The book also describes Islamic movements in North Africa and the Middle East.

Persian Gulf Stability

An important cornerstone of U.S. policy is to promote stability among our Arab allies in the Persian Gulf area. To do so, analysts must forecast divisions and potential sources of revolt that could topple the Al-Saud family. The United States does not want to be caught by a surprise revolution such as that which occurred against the Shah of Iran in 1979. We cannot simply rely on government sources for an accurate picture of intelligence and regional politics.

United States and allied dependence on Saudi oil demands a close examination of the region and an understanding of the Al-Saud family's power base. In addition, the United States should monitor closely disputes among the Gulf States, including border disagreements. Iraq is the greatest source of instability in the Gulf region. Understanding Saddam Hussein's intentions as well as the very real forces that could topple his regime is necessary.

The stability of Saudi Arabia is always of concern to the United States. Instability in Saudi Arabia could have repercussions on energy markets, U.S. Armed Forces based in

the region, Persian Gulf stability, and potential Iraqi military intervention. Nowhere is instability as apparent as in the Al-Saud family's royal-succession process. Although dated, Alexander Bligh's book, *From Prince to King: Royal Succession in the House of Saud* (New York University Press, 1984), is key to understanding the significance of Saudi appointments and the posturing of various branches of the Al-Saud family. This has become more urgent as new generations of Abdul Aziz's grandsons become eligible for kingship.

Several groups of dissenters are calling for the downfall of the monarchy. Mamoun Fandy's book, *Saudi Arabia and the Politics of Dissent* (New York: St. Martin's Press, 1999), covers six organizations bent on addressing corruption, unemployment rates, and a lack of religious following in Saudi Arabia. Many of these organizations feel that the United States controls the royal family and dominates Saudi Arabian policies. I do not believe these organizations can topple the Saudi regime; however, if they merge with elements of the Saudi National Guard, they might succeed in their goals of creating an Islamic state in Arabia.

Gary Sick and Lawrence Porter are the editors of *The Changing Face of the Persian Gulf at the 21st Century* (New York: St. Martin's Press, 1997), which is a collection of essays about changes in the Persian Gulf region that could lead to instability. I highly recommend this book.

Essayist Richard Scofield describes the border disputes between Iraq and Iran, Iraq and Kuwait, as well as Iran and the United Arab Emirates. He also discusses Bahrain's claim to the islands annexed by Qatar and Saudi Arabia and Qatar's disagreement about the delineation of their respective borders. In her essay, Munira Fakhro reveals the growing need for democratization and analyzes the 1994 uprising in Bahrain.

Any nation that must interact with Saddam Hussein must understand that he is a dictator driven to achieve one thing—survival. Efraim Karsh and Inari Rautsi wrote the first political biography of Saddam after the Gulf War—*Saddam Hussein: A Political Biography* (New York: The Free Press, 1991). Readers are transported into a world of violent Iraqi politics focused on Saddam's desire

to survive at all costs. When threatened, Saddam will strike with all the forces at his command. Should he feel boxed into a corner, he will not hesitate to use chemical and biological weapons. Analyzing Saddam's rise to power helps predict his future actions but also explains why his call for a jihad did not resonate with Muslims around the world.

Israeli-Palestinian Dispute

The Israeli-Palestinian dispute continues to be a source of concern for any U.S. administration. Efforts to bring about a peaceful resolution of this conflict will no doubt continue to be a source of instability in the region. Islamic militants use this issue as a main source of grievance toward the West.

John Gee's book, *Unequal Conflict* (Brooklyn, NY: Olive Branch Press, 1998), details the evolution of the State of Israel and the disadvantage the Palestinians have in politically defending their homeland against a well-organized, articulate European Jewish effort to establish a Jewish homeland in Palestine. This book is intriguing because it explores the myths created by both sides regarding their claims to the land. Gee argues that before a peaceful resolution can be found such myths must be shattered.

Those who argue that peace in the region is impossible should read Uri Savir's book, *Talking with the Enemy Through Secret Back Channels* (New York: Random House, 1998), which tells of the secret negotiations (the Oslo Accords of 1993) that lasted 1,100 days in Oslo, Norway, between the Israeli government and the Palestine Liberation Organization (PLO). Such secret and unofficial communications are key to solving the region's many problems and to providing a dialog among the several governments that want to see an end to violence. Savir profiles the Palestinian negotiating team, which could be a model for assessing other Palestinian negotiators who, hopefully, will resume talks after the current round of violence.

Baruch Kimmerling and Joel Migdal wrote *Palestinians, the Making of a People* (New York: The Free Press, 1993) out of frustration with a Jewish society that regarded the Palestinian people as nonentities. Searching for the sparks that have or

will ignite Palestinian violence, they explore key events from the 1936 Arab Revolt to the 1987 Intifadah.

Yasser Arafat has been called many things, but for now, he is holding tenuously to his post as the head of the Palestinian Authority, the PLO, and sole representative of the Palestinian people. Andrew Gowers and Tony Walker's biography, *Behind the Myth: Yasser Arafat and the Palestinian Revolution* (Brooklyn, NY: Olive Branch Press, 1991), deals truthfully with Arafat's role in key events in Palestinian history. Some of the mythology that Arafat has produced to enhance his political credentials includes his exact birthplace and the true extent of damage caused by the 1966 raids into Israel. Arafat watched from exile in Tunis as the Intifadah raged on in 1987 and took a wait-and-see approach before endorsing the revolt. After seizing control of the uprising and finally arriving in Gaza after the Oslo Accords, Gazan leaders warned Arafat about the Palestinian-Tunisian group who were lining their pockets and could not have cared less for the cause of independence. The warning fell on deaf ears. Had Arafat paid attention, Hamas would not now be so popular in the Occupied Territories.

The *Historical Dictionary of Terrorism,* edited by Sean K. Anderson and Stephen Sloan (Lanham, MD: The Scarecrow Press, Inc., 2002), is a must for readers who want to know more about the actors and organizations these books mention.

Thoughtful Reading

The important issues these books cover are the issues behind the instability of the Persian Gulf region, but the issues are not independent. They are often linked in subtle ways and are essential reading for thoughtful readers who want to know how the past affects current events. *MR*

Lieutenant Youssef Aboul-Enein, U.S. Navy, is a Middle East/North Africa Foreign Area Officer. He received a B.B.A. from the University of Mississippi, and an M.B.A. and M.H.S.A. from the University of Arkansas. He is a graduate of the U.S. Navy Command and General Staff College and is attending the Joint Military Intelligence College. He has served in Liberia, Bosnia, Saudi Arabia, Egypt, and the continental United States. He is a frequent contributor to Military Review.

HITLER'S TRAITOR: Martin Bormann and the Defeat of the Reich, Louis Kilzer, Presidio Press, Novato, CA, 2000, 290 pages, $29.95.

Writing about war is a continuation of politics by another means (with apologies to Clausewitz). U.S. history books and most books written by U.S. authors go to great lengths to dissect facts, explain actions, and enlighten readers about U.S. war activities. With a few notable exceptions, works about the European Theater are confined to U.S. and British actions to defeat Nazi Germany. Consequently, most Americans are woefully uninformed about the tremendous contributions and unbelievable sacrifices the Soviet Union made toward that same goal.

In *Hitler's Traitor: Martin Bormann and the Defeat of the Reich,* Louis Kilzer examines the war from the Soviet viewpoint. In particular, he writes about a German informant named Werther, who fed information to the Soviets. Kilzer contends that six to eight people involved in a Soviet spy ring were directly responsible for the Soviet Union's ability to defeat German dictator Adolf Hitler's forces. Hitler had better equipment, generals, and troops, yet Stalin and his generals were able to thwart all of Hitler's plans. Why? Stalin had knowledge of Hitler's plans, troop dispositions, timelines, and the attitudes of his commanders even before the forces in the field did. The only way this was possible was if the information was coming from Hitler's innermost circle.

Kilzer gives in-depth information gathered from previously classified documents about the type and depth of information Stalin received from his prized informant. Kilzer discusses the climate around Hitler that enabled and, perhaps, encouraged such treason. The reader learns how the information was passed from Germany to Moscow and what happened to most of the actors in the drama. Finally, Kilzer details why he believes

Werther was none other than Martin Bormann, Hitler's second in command.

The book, a fascinating account of political machinations and incredible blunders, reads like a spy novel, but it has the advantage of being true. Kilzer presents his material in an entertaining manner while providing an entirely new perspective on an old mystery.

David G. Rathgeber, *MCTSSA, Camp Pendleton, California*

THE CHALLENGE OF CHANGE: Military Institutions and New Realities, 1918-1941, Harold Winton and David R. Mets, eds., University of Nebraska Press, Lincoln, 2000, 247 pages, $50.00.

The title of the book, *The Challenge of Change*, could easily serve as the theme for an upcoming issue of *Military Review*. The topics covered—army transformation, technological innovation, military culture, and strategic assessment—are ones that will resonate with military professionals. Yet, because this anthology is a scholarly investigation of the period between the world wars, not a celebration of emerging doctrine or Force XXI technology (the words "leverage" and "asymmetric" appear not once), the contents deserve special attention. By looking at how the armies of France, Britain, Germany, the Soviet Union, and the United States transformed themselves during the interwar years, the authors of this collection give historical perspectives and points of comparison for the problems the U.S. Army currently faces.

Each author, an acknowledged expert in his field, has been involved with the professional education of officers. Harold Winton offers the introduction plus a fascinating essay on Great Britain's inability to resolve the problems of empire maintenance, shrinking budgets, and competing egos in a fractious military culture. Eugenia Kiesling analyzes France's

failed effort to reconcile short-term conscription, the perceived lessons of World War I, and a re-arming Germany. James Corum portrays the interwar German Army as a body able to institutionalize tactical excellence in its officer education and combined arms training even as Hitler was purging its strategic thinkers. Jay Kipp contributes a fascinating piece showing how the Soviet Army rose from the wreckage of the Tsarist military to become a modern, mechanized force that led the world in its theoretical development of the operational level of war.

In examining the U.S. Army between the wars, David Johnson offers an especially jarring thesis. The generally accepted view of the 1920s and 1930s is one of a stingy Congress crippling the Army's efforts to modernize. Johnson suggests otherwise: Service culture and branch rivalries were the true obstacles to transforming the force.

Dennis Showalter provides the most provocative element of the book. In a fascinating analogy, he compares World War I to a light-refracting prism. In 1914, the major armies approached the prism on roughly the same course: each was built on the two-divisions-to-a-corps, nation-in-arms model pioneered by Prussia in the late 19th century. The Great War served to refract their paths as each derived unique lessons from the experiences of 1914-1918. The French, for example, chose the route of methodical attack built on massive artillery support and centralized control. The Germans emphasized combined arms, maneuver, and decentralized control. The Soviets combined communist ideology with the lessons from their own civil war in developing a massed, mechanized army.

As Showalter analyzes these divergent paths, he tweaks our preconceived notions about winners and losers in the game of adaptation. The

French are usually held up as the ones who failed to adapt, yet Showalter finds that the French methodical attack anticipated the methods of Russian, British, and U.S. commanders during the last half of World War II. Perhaps the French got it right too soon. Showalter surprises us by suggesting the Germans changed least of all in the years between the war. More than anything else, the Wehrmacht capitalized and improved on the techniques developed in the first war. Their bag of tricks, Showalter reminds us, came up empty somewhere on the road between Smolensk and Moscow.

Showalter's is a thought-provoking conclusion to a book crammed with important ideas. The historian will value the book for prodding us to look at the interwar period in a new light. The military professional will find it useful for its description of the pitfalls of both inadequate and ill-conceived transformations.

LTC Scott Stephenson, *USA, Retired,*
Leavenworth, Kansas

MAGIC: The Untold Story of U.S. Intelligence and the Evacuation of Japanese Residents from the West Coast during World War II, David D. Lowman, Athena Press, Inc., Provo, UT, 2001, 391 pages, $29.95.

David D. Lowman was a career intelligence officer for the National Security Agency. His last assignment before retirement was special assistant to the director. One of Lowman's major assignments involved declassifying intelligence records, including sources from MAGIC, the decrypted Japanese diplomatic signal traffic. Some of that material, intercepted and decoded from late 1941 through early 1942 and incorporated into this book, describes Japan's systematic recruitment of U.S. Japanese residents, citizens, and noncitizens into networks designed to provide critical national-security and defense information before and after the outbreak of war.

The information gathered from various U.S. intelligence agencies and presented to U.S. President Franklin D. Roosevelt and his key advisers revealed a creditable threat to the national security of the United States and its allies. The book reveals that this information gave knowledgeable senior-level personnel in the administration a firm belief that if a large number of Japanese were free to move about inside and outside U.S. borders, they would become a major threat to national security.

Lowman's evidence refutes the accepted history that the evacuation was solely the result of national leaders' "racism, war hysteria and the lack of political will." He also relates how intelligence was ignored or misrepresented by those seeking compensation from the U.S. Government for wartime evacuation and internment.

Richard L. Milligan, *Ph.D.,*
Fort Leavenworth, Kansas

HITLER'S AUSTRIA: Popular Sentiment in the Nazi Era, 1938-1945, Evan Burr Bukey, University of North Carolina Press, Chapel Hill, 2000, 320 pages, $39.95.

During the past few decades, historians have conducted many groundbreaking and significant studies designed to demonstrate historical trends and events from the perspective of ordinary citizens. The era of National Socialism in Germany is a historical period of which such studies are prolific.

Evan Burr Bukey conducts a similar evaluation for a small portion of the German Reich—Austria—in his book *Hitler's Austria: Popular Sentiment in the Nazi Era, 1938-1945.* Bukey shapes his analysis in the same manner as Ian Kershaw, a historian who has contributed tremendously to the field of social history. Although Bukey admits that he has never met Kershaw, the latter's influence over this book is quite marked. As such, this is Bukey's attempt to determine the "collective dispositions of society" in Austria throughout the period of the entire Third Reich.

The study begins with a look at Germany's incorporation of Austria—renamed the Ostmark—into German dictator Adolf Hitler's Empire in 1938 and carries forward through World War II. Bukey demonstrates the nuances of Austrian Nazism and popular sentiment as well as the inconsistencies between the Alpine State and the core German Reich.

Three inconsistencies run as continuous threads throughout the book and stand out as particularly worthwhile to the reader.

First, Bukey demonstrates the factional nature of Nazism in Austria, aggravated by Berlin's tendency to send homegrown Nazis to assume positions of leadership and authority within the party apparatus in Austria after the Anschluss. In many cases, these carpetbagging interlopers pushed Austrian Nazi leaders, always a "fractious and discordant group," into the political background. The result was substantial friction throughout the war years between the two groups.

Second, Bukey addresses the tension between civilians within the Reich and the Ostmark. The tension was created and exacerbated by divergent aims among numerous groups, such as urban and rural residents or native and tourist populations.

Finally, Bukey highlights the unique elements of popular sentiment that resulted from the fact that, for much of the war, Austria was not a prime target of Allied bombing missions or ground combat. Not only did these considerations affect the Austrian population's opinions of the war in general, they also made the fear of bombing, both perceived and realized, much more significant.

Given the noteworthy and tangible strengths of this work, there are some areas where Bukey's analysis is wanting. Although comparisons are difficult to avoid, Bukey almost devotes too much effort contrasting Austria with Germany, and he does not allow the Austrian experience to stand on its own merits. While some juxtaposition certainly is necessary and effectively demonstrated in some situations, most notably the continuous examination of Austria's discordant Nazism, in other areas it leads to disconnected examination of important themes. Most prominent in this regard is the Austrian populace's approach to the Jewish Question and anti-Semitism. The topic jumps in and out of Bukey's narrative, yet he never really addresses the root causes of anti-Semitism in Austria.

While Austria's war experience might have ended with a whimper

rather than a bang, the way in which the country and the Austrian people have struggled to come to grips with the experience of the Third Reich merits a deeper examination. Bukey lets discussion end rather ingloriously, especially considering his rather tendentious comment that "more disturbing than the persistence of authoritarian thoughts, habits, and opinions was the survival of widespread anti-Semitism" after the war. This comment alone invites a wonderful opportunity for debate and discussion, yet it serves only as a finale.

Nonetheless, Bukey provides a fascinating glimpse inside the Ostmark's social world. He raises intriguing questions about the role of the Austrian populace in the successes and failures of Hitler's regime, particularly those on the periphery of the German political landscape. His work serves as an excellent beginning to new fields of study.

MAJ Michael A. Boden, *USAR,*
Schweinfurt, Germany

GREEN BERETS IN THE VANGUARD: Inside Special Forces, 1953-1963, Chalmers Archer, Jr., Naval Institute Press, Annapolis, MD, 2001, 139 pages, $29.95.

In *Green Berets in the Vanguard,* Chalmers Archer, Jr., as a black man during the early days of integration in the military, offers a unique historical perspective on U.S. Army Special Forces (SF) during its formatives years. Archer, a medical sergeant during the early days of Special Forces, skillfully blends his capabilities as an award-winning writer and educator with his military experience to produce a thoughtful, captivating story.

Archer has an uncanny knack of offering macro and micro perspectives of situations on the ground. While offering strategic suggestions of SF employment, he also speaks authoritatively on the local norms and customs of the host nation (HN) people with whom he served. Archer pays attention to what happened at the grassroots level and ties actions clearly into a strategic framework.

Archer views SF soldiers as field diplomats, trainers, leaders, and fighters. He bases his account on a variety of missions and operations that took him to Hawaii, Thailand, Taiwan, Vietnam, Okinawa, and Laos. He stresses the values of teamwork, commitment, courage, and community. The values-based, multifaceted roles and human dimensions of Special Forces are themes Archer carries superbly throughout the book.

A variety of colorful vignettes help explain the SF legacy. Archer tells of the origins of the green beret, shoulder sleeve insignia, early relations with other government agencies, training HN soldiers, and the gap between policymakers and the troops who had to execute the policy on the ground. He ends the book with insightful lessons learned and a wise look toward the future.

MAJ Fred T. Krawchuk,
USA, Europe

ALL FOR THE REGIMENT: The Army of the Ohio, 1861-1862, Gerald J. Prokopowicz, The University of North Carolina Press, Chapel Hill, 2001, 280 pages, $34.95.

In April 1861, President Abraham Lincoln called for volunteers from the loyal states to suppress the rebellion initiated after the bombardment of Fort Sumter, Virginia. The states began organizing regiments, which were sent by the U.S. War Department to perceived threatened areas, such as the area between Washington, D.C., and Richmond, Virginia. The regiments eventually became the Army of the Potomac—the most celebrated of the Union armies.

Kentucky was another threatened area. Lincoln wanted the state to remain neutral. Some regiments were sent to areas near Cincinnati and other Ohio River locations to control the threat. These regiments eventually became the Army of the Ohio, which is arguably the least documented of the Civil War armies. In *All for the Regiment: The Army of the Ohio, 1861-1862,* Gerald J. Prokopowicz offers an overdue history of this important Army.

Prokopowicz's thesis is that the Army of the Ohio's regiments were generally proficient and capable units but, when joined with other equally qualified regiments, the resulting units performed poorly. Prokopowicz believes the poor performance of these higher echelon units (brigades, divisions, and corps) was the result of regimental pride and conceit combined with an unwillingness or inability of leaders to command at higher levels. He believes the Army of the Ohio consisted of skillful regiments that could not be made into or led to be a good field army.

While the book provides interesting insight into unit esprit de corps, it is not a comprehensive history: it lacks details on the many skirmishes and battles that a complete history of a Civil War field army would require, and we never see the battles from the Confederate perspective.

Prokopowicz ends the book when, after the Battle of Perryville, the Army of the Ohio changed its name to the Army of the Cumberland. The reader is left wondering if regimental harmony described up to October 1862 continued throughout the war.

LTC Jeffrey J. Gudmens, *USA,*
Fort Leavenworth, Kansas

WORLD WAR II: The Pacific, F. Weaver and E. Herrmenn, narrators and eds., The History Channel Audio Books, Simon and Schuster, NY, 8 tapes, running time: 4 hours, $26.00.

This package of eight audiotapes is from selected programs from The History Channel about World War II battles in the Pacific. The tapes' titles announce their content and level of sophistication: "The Road to Infamy"; "Unsung Heroes of Pearl Harbor"; "Japanese War Crimes and Trials"; "Murder Under the Sun"; "Tarawa—Correspondents from Hell"; "The Flag Raisers of Iwo Jima."

As one might suspect from their titles, the tapes are highly dramatized, jingoistic versions of military history prepared, one must assume, for consumption by junior high school students who are considering enlistment in the military. Neither subject nor the manner of presentation pretends to being unbiased, scholarly, or anything more than recounts of heroic deeds of U.S. sailors and marines during the Pacific Campaign of World War II.

No indication is evident that these eight tapes are forerunners of a more extensive publishing effort in audio form of the original Military History

Channel series of audiovisual TV presentations, which contained some vivid visual footage. Taken alone, these tapes have little value. For audio history to be of value, it must be designed for its intended purpose, not used as an afterthought or as a source of revenue.

RADM Ben Eiseman, *USNR, Retired, Denver, Colorado*

ONE OF CUSTER'S WOLVERINES: The Civil War Letters of Brevet Brigadier General James H. Kidd, Eric J. Wittenberg, ed., Kent State University Press, Kent, OH, 2000, 264 pages, $35.00.

In *One of Custer's Wolverines,* Eric J. Wittenberg, preeminent biographer of Brigadier General James H. Kidd, provides a glimpse into the personal life of this little-known Civil War cavalry soldier and commander. Wittenberg uses Kidd's letters, written during the Civil War, to illustrate the exploits of General George Armstrong Custer's Michigan Cavalry Brigade. This valuable insight, from one who was intimately close to Custer during his formative years, provides a rare portrait of the type of young cavalier who took the reins to follow Custer.

Kidd's letters are exceptionally well written, clear in thought, and remarkably frank. In preparing and editing the various letters, Wittenberg manages to weave a tale of one of the less heralded cavalry units that fought during the Civil War. The letters are interspersed with reflections and reminiscences of activities occurring elsewhere during the same period. The result is a poignant, touching look into the mind of a young man living through experiences that shaped the course of a nation.

MAJ Steven Leonard, *USA, Fort Campbell, Kentucky*

INTELLIGENCE AND THE WAR AGAINST JAPAN: Britain, America, and the Politics of Secret Service, Richard J. Aldrich, Cambridge University Press, New York, 2000, 483 pages, $34.95.

Often a book on a seemingly arcane subject can illuminate an entire field or time period. Richard J. Aldrich's book, *Intelligence and the War Against Japan,* prods the reader into reconsidering some of the shib-

boleths of the history of American diplomacy and foreign policy, namely the ineptitude of diplomatic and intelligence operations in Asia during World War II. This prodigiously researched and well-written book details wartime policy contradictions and their implications for postwar policies toward South and Southeast Asia.

Much of the writing about World War II British and American intelligence organizations concentrates on activities in Europe. Historians deem this struggle more significant in forming and maturing both countries' espionage organizations and laying the foundation for a close postwar "special" relationship. Their histories deemphasized national rivalries while emphasizing cooperation. As Aldrich shows us, however, intelligence activities in Asia provided a much truer picture of wartime and postwar political activities and goals.

The espionage wars the British and Americans fought against each other and the Japanese occurred in separate geographic compartments. Frequently physically isolated, the only day-to-day contact between the two powers was through their respective intelligence organizations. As Aldrich and other scholars discovered, these agencies were subject to little effective day-to-day control from Washington and London.

Intelligence gathering and analysis was the growth industry of World War II. Machine encryption and decryption made these aspects of intelligence operations industrial in scope and left agents more time for long-range analyses of various powers' political, military, and commercial interests. British and American organizations, created and operated in competition with colleagues and allies, saw themselves as crucial instruments of national policy. Often, they concentrated on creating a postwar world that would benefit their respective institutional and national interests.

Because British and American services assumed they would defeat the Japanese, they concentrated on watching each other and collecting political and commercial intelligence on their respective governments' postwar policies. There was much to

watch; national rivalries and competition ignored in Europe were impossible to ignore in Asia.

Aldrich shows the ways internal and external rivalries between the two sets of intelligence agencies grew. Americans, he concludes, were motivated by anticolonialism and an aversion to be seen as the musclemen for European imperialism. This led them to develop their own links with nationalist movements and leaders that resulted in a "Great Game" between the two sets of secret services in the region. At one point relations were so bad between them that the U.S. 14th Air Force (operating in China) reported that it had probably shot down two British aircraft carrying infiltration agents into French Indochina.

This book gives two true views of Anglo-American intelligence relations. The first view is the conventional one of the two allies acting in concert against the Axis powers. The second view emphasizes that both were cognizant of long-term national interests in the region. The British became fearful of aggressive, energetic, and "corporatist" U.S. political and commercial penetration of their empire. Neither view contradicts the other.

Lewis Bernstein, *Ph.D., Huntsville, Alabama*

THE GENIUS OF ROBERT E. LEE: Leadership Lessons for the Outgunned, Outnumbered, and Underfinanced, Al Kaltman, Prentice Hall Press, Paramus, NJ, 2000, 352 pages, $24.00.

The Genius of Robert E. Lee is an excellent book that provides unique insight into professional growth and leadership. Although author Al Kaltman focuses more on management techniques and development, readers can use the information to develop their own fundamental leadership principles and insights.

The current trend in the Army is to attempt to identify core problems of leadership shortfalls that answer the question of why the Army is losing its junior leaders. This is a weighty undertaking, and there are many complex solutions. Kaltman uses the writings and recorded actions of Lee on which to base each of his management principles. He

expounds on about 250 key events in Lee's life and links each to a principle.

Kaltman divides the principles into 12 major groupings; such as, "Pull Out All the Stops," "Prepare Yourself," "Take Command," "Continuous Improvement," and the "Winning Image." Some lessons learned are so delicate, yet so powerful, that I found myself wondering why they are not stressed to young leaders. Subjects include "Don't Take It Personally," "Turf Squabbles," "Bad Mouthing," "No One's Out to Get You," "Respect and Consideration," "Don't Take Them for Granted," and so on.

Where does the Army teach these powerful lessons? Are they taught at the service academies, Officer Candidate School, basic and advanced courses, or the Command and General Staff Officers Course? As an institution, the Army is good at teaching concepts represented by buzzwords, such as "Army Values," but which institution teaches such subtleties as are found in this book?

Professional officers and noncommissioned officers should read and digest the information in this book. They should reflect deeply on each principle, then put it into practice. The ability to work basic leadership skills

into everyday life and pass them on to junior leaders is critical to institutional growth.

LTC Billy J. Hadfield, *USA,*
Beaver Creek, Ohio

THE 1865 CUSTOMS OF SERVICE FOR NON-COMMISSIONED OFFICERS AND SOLDIERS: A Handbook for the Rank and File of the Army, August V. Kautz, Stackpole Books, Mechanicsburg, PA, 2001, 303 pages, $14.95.

Stackpole's reprint of the 1865 handbook is a valuable reference tool for Civil War historians or reenactors. This edition contains essential information that soldiers and noncommissioned officers needed to know about military responsibilities at the time. The practical subjects helped them survive the rigors of campaigning.

August V. Kautz, a German immigrant who graduated from West Point in 1852, was a career officer. During his service, he recognized that the enlisted soldier was "dependent upon tradition for a knowledge of his specific duties." There was no written guide for learning what soldiers needed to know to perform their duties proficiently. Kautz wrote, therefore, what he referred to as a "handbook," and Congress authorized its

publication in 1864, with a revised edition being published the following year.

The handbook included instructions on how to seek an appointment to West Point and a summary of the courses that a cadet would take during his four years there. For soldiers desiring to become officers, Kautz gives an abstract of the pertinent regulation along with a list of subjects to be covered during an examination.

The book also covers the duties expected of soldiers up to the rank of sergeant major in garrison and in the field. There is information on pay and allowances, identification of rank, courts-martial and punishment, types of paroles for prisoners, and pensions.

Because of the prevalence of disease at the time Kautz wrote the handbook, it has a section on cooking and another titled "Take Care of Your Health." Twelve pages are devoted to firing during battle. There are sections that provide information of specific importance to soldiers of infantry, artillery, cavalry, engineer, ordnance, and signal units. Of particular value to the historian is a list of the Articles of War.

Reproduction and publication of this handbook provide the serious student of the Civil War with an exceptional primary source document. Anyone studying, writing about, or reenacting military subjects and the Civil War is encouraged to have this book in his or her personal library.

Richard L. Kiper, *Ph.D.,*
Leavenworth, Kansas

GREEN COATS AND GLORY: The United States Regiment of Riflemen, 1808-1821, John C. Fredriksen, Fort Niagara Publications, Youngstown, OH, 2000, 77 pages, $12.95.

Although the United States is famous for being a nation of riflemen, at the end of the 18th century and the beginning of the 19th century, the U.S. Army did not have a rifle to its name. Various states maintained rifle formations, but Regulars were armed with smoothbore muskets. As the nation expanded, a corps of riflemen was required for frontier defense.

Green Coats and Glory, winner of the Harold L. Peterson Award for best

essay on military history, provides an excellent, if brief, history of the U.S. Army Rifle Regiment. Recruited from frontiersmen for scouting and skirmishing, the regiment established an excellent record in open combat. The regiment was armed with the 1803 Harper Ferry Rifle, which had no provision for a bayonet in an age when half the reason for a longarm was to provide a bayonet mount. Detailed accounts of battles show that the Riflemen made up for their slow rate of fire with accuracy. The rifle regiment was considered an elite unit—the Special Operations Force of its day. However, the regiment's elan gave rise to accusations of indiscipline, and its politically appointed officers provided uneven leadership.

Author John C. Fredricksen provides clear illustrations of the unit's unique uniform and weapons. His excellent research and clear writing provide a compelling history of an early light infantry formation and leave the reader wishing for more.

Kevin L. Jamison, *Attorney at Law, Gladstone, Missouri*

THE MAN WHO FLEW THE MEMPHIS BELLE, Robert Morgan with Ron Powers, Penguin Group Publishing, New York, 2001, 388 pages, $25.95.

A considerable number of books have been released lately about World War II, especially personal reflections on the war from individual perspectives. Such works are quite revealing, but more important, they capture the intimate thoughts on a generation of veterans. Most of the stories have never before been heard; others are better known. The *Memphis Belle* is one of the better known stories—or is it?

In *The Man Who Flew the Memphis Belle*, Colonel Robert Morgan and Ron Powers admirably capture the dramatic events surrounding the story of the famed World War II B-17 bomber nicknamed *The Memphis Belle* and the lesser known story of Morgan, the *Belles'* pilot. *The Memphis Belle* and her crew were the focus of a 1944 war documentary as the first bomber crew to survive 25 combat missions over Europe during World War II. The crew returned to a sensation at home in 1943 and were employed in a nationwide bond tour to support the war effort.

What Morgan and Powers do effectively is to fully develop the background of Morgan's youth, training, and combat experiences in the fledgling U.S. Army Air Forces in England. Readers who are familiar with *The Memphis Belle* story soon discover there is a whole lot more to know. The story is a human diary of emotions, a window into pre-war America, and a history of the dark days of the American war experience in 1942. The book also describes the bomber effort in the Pacific, as the story follows Morgan to the Pacific Theater where, as a squadron commander, he pilots the new B-29 during 26 missions against Japanese targets.

The Man Who Flew the Memphis Belle is an honest American story full of personal successes and failures. For that reason alone it is an enjoyable book. Yet, it is also a historical window into American's early involvement in World War II and a riveting story of aerial combat in which many died who would never know how much they contributed. I highly recommend this book.

MAJ Ted J. Behncke, Sr., *USA, Fort Leavenworth, Kansas*

THE RUSSIAN WAY OF WAR: Operational Art, 1904-1940, Richard W. Harrison, University Press of Kansas, Lawrence, 2001, 351 pages, $39.95.

In *The Russian Way of War,* Department of Defense investigator Richard W. Harrison explores the intellectual development of Russian military thought. The book opens on the 1905 Russo-Japanese War and concludes with an analysis of activities that occurred on the eve of Operation Barbarossa in 1941. Some might consider that studying Russian and Soviet doctrine is passé, but the reality is that many developing nations embraced Soviet doctrine, and others, such as the People's Republic of China, absorbed copious amounts of Russian military hardware. Although Russia's political landscape has changed, its military is still formidable. Embedded in parts of this book are descriptions that are the antecedents to Iraqi and Yugoslav military styles of operations.

Beginning as early as 1920, Generals V.K. Triandafalov and M.N. Tukhachevskii wrote prolifically on the need to mechanize the Soviet

cavalry. Hardened by their experiences of trench warfare, they envisioned a multidimensional battlefield employing rapid-moving infantry supported by air forces and static artillery.

Soviet military thinkers were tuned into the importance of destroying centers of gravity and the enemy's ability to sustain war. Among the Russian military thinkers Harrison cites is General N. Kaputsin, who wanted to develop a specialized group composed of mechanized infantry supported by engineering units, that could break through first-echelon defenses. However, Kaputsin could not see beyond trench warfare and was among those caught unprepared by the German Army's "blitzkrieg."

Harrison also tells the amazing story of how Poland fell to the Germans in 1939; France fell a year later. Soviet politicians blamed the debacle on western forms of governments and decadence and refused to consider that the Nazis might have developed new tactics of warfare. Also of interest is the Russian view their national security for five decades and how they sought to counter Asian and European threats. Further enlightening is how greatly the tank revolutionized Russian military thought.

This book, which should be of interest to tacticians and military school graduates alike, offers a world beyond the writings of western military thinking to which we have grown accustomed.

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AIR-MECH-STRIKE: 3-Dimensional Phalanx, David L. Grange, Huba Wass De Czege, Richard D. Liebert, Charles A. Jarnot, and Michael L. Sparks, Turner Publishing Co., Paducah, KY, 2000, 311 pages, $24.95.

The U.S. Army currently stands on the leading edge of a wide-ranging transformation—a transformation to a more deployable, lethal force than the current array of heavy and light divisions. In *Air-Mech-Strike,* David L. Grange et al., challenge the Army to look more closely at how it plans to maneuver forces on the next battlefield. Impressive in its scope of research and detail, the book is absolutely intriguing in the analysis of

tactical employment.

The authors have done an excellent job of gathering historical background from around the world; allies and enemies alike have struggled to solve the problem of operational agility. The authors reviewed German, Russian, British, and American efforts to combine ground assets with aerial platforms. It is clear throughout the various historical accounts that no unit successfully accomplished the marriage of air and ground down to the level articulated by Grange and his esteemed cast of co-authors.

As a former member of the 101st Airborne Division and the 1st Cavalry Division, I am intrigued by the thought of actually providing increased firepower and mobility to light forces while allowing mechanized forces to take advantage of air assault flexibility. Imagine the possibility of air assaulting a mechanized company up and over the Tiefort Mountains to attack an opposing force from an unexpected flank. The same could be said for airborne or air assault troops having increased firepower and mobility on the airhead line.

The book's single greatest drawback lies in its poor editing and organization, which cause it to be exceptionally difficult to read. The book seems to have been hastily cobbled together to take advantage of the chief of staff's emphasis on immediate transformation. Unexpected font shifts coupled with grammatical errors make it difficult to absorb the material, thus reducing the message's effectiveness. The book should be restructured with appendices for tables of organization and equipment; historical chapters should be gathered in a single section of three or four chapters; and the annotation should be pushed to a final bibliography as opposed to strewn haphazardly throughout the text. The Korean and Kuwaiti situation maps do little to depict clearly how the proposed formations will fight in either theater; the same might be said for the various photos and slides found throughout the book.

In closing, I reiterate; this book generates honest thought on another possible method to increase agility and lethality on the modern battlefield. One of the strongest points is that most of the proposed structure changes take advantage of current, existing materials or technology. Commercial off-the-shelf acquisition is a key method of rapid development and testing of new concepts, and this book asks, in this era of Transformation, "Why not try this while we're at it?"

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Remembering 11 September 2001

"Make no mistake, the
United States will hunt
down and punish those
responsible for these
cowardly acts."

President George W. Bush
12 September 2001